



# ***The Ultimate Guitar Workout***

*The  
fastest way  
to improve  
your guitar  
playing.*

*By Mark Nelson  
and  
Chris Connors*

**A  
modern  
guitar  
method  
for  
today's  
challenging  
music.**

# ***The Ultimate Guitar Workout***

***By Mark Nelson and Chris Connors***

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# Introduction

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*The Ultimate Guitar Workout* was designed to improve playing speed, accuracy, and coordination in the quickest way possible. It will also give you enough music theory information to make you a knowledgeable musician.

What makes this book unique is that music reading is not required to use it. Also, the teaching method we've used is different than any other. Rather than spending countless hours reading music from a song book, you will be using many effective exercises to help you become an excellent guitar player.

Some instructional books overwhelm the reader with page after page of complex information and others give you very little information at all. Our exercises use tablature and diagrams to make guitar playing easier and more enjoyable. You will be able to spend more time actually playing your guitar.

The book is divided into three sections:

Part one, *Getting In Shape*, is made up of over two hundred exercises. Each one is designed to improve your playing skill. Playing techniques such as alternate picking and fretboard tapping are also introduced here.

In part two, *Playing In Key*, you will learn how to play scales, modes, chords and arpeggios. A detailed explanation is given showing how each of these are created and used in music. With the exercises in this section you will learn how to play in key anywhere on the guitar.

Part three, *Applying what you've learned*, is where you will learn some riffs, advanced progressions, and solos. This section combines the techniques and exercises used in the previous chapters.

Whether you are a beginner, intermediate or advanced guitarist, no matter what type of music you play, *The Ultimate Guitar Workout* can help you become a better musician.

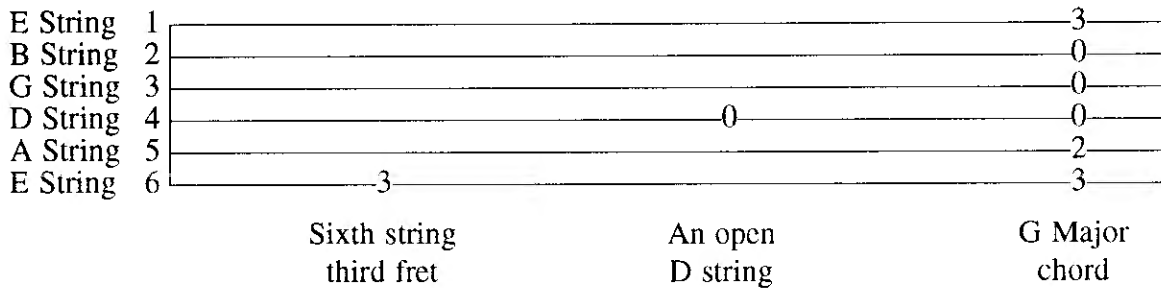
Practice hard and have fun,

Mark Nelson

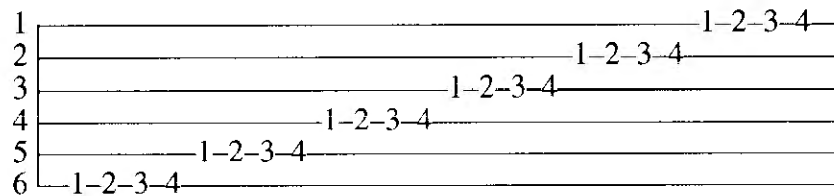


## ***Tablature***

Taking the place of sheet music, tablature is a method of reading that has become very popular with today's guitarists. On the diagram below, the horizontal lines represent the six strings on the guitar. The top line is the high E string, and the bottom line is the low E string. The numbers on the lines are fret numbers. When numbers are stacked on top of each other, the notes are played at the same time. The number 0 represents an open string. Read the tablature from left to right.



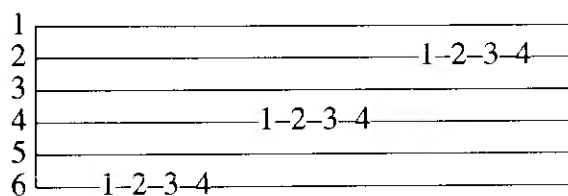
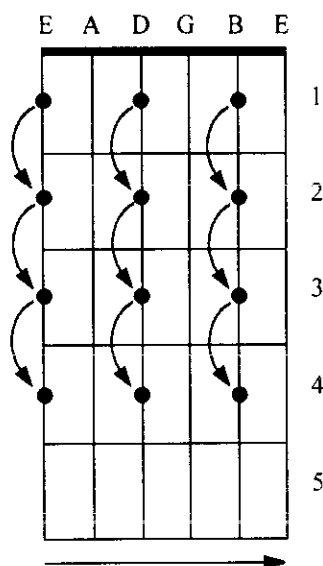
The example below shows what the tablature would look like if you were to play the first four notes on each string.



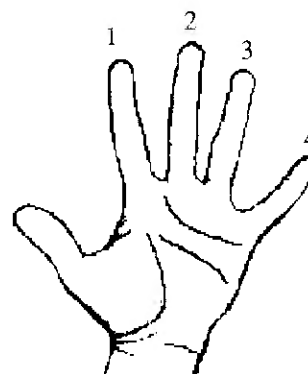
Usually sheet music is included with the tablature so you can see how to play the rhythm correctly. In this book however, the exercises are played with a straight rhythm, so every note equals the same amount of time. In part three, rhythmic variations have been added to the tablature to make the riffs, progressions, and solos sound more musical.

## ***Guitar Diagrams***

Easy to follow guitar diagrams will be used to show how to play exercises, scales, chords, and arpeggios. The diagram on the next page represents a picture of the guitar neck from the open position to the fifth fret. The vertical lines are the strings, and the horizontal lines are the frets. The dots represent the notes to be played, and the arrows show the correct order they should be played in. Fret numbers are shown on the side of the diagram, and open string notes are shown across the top. The tablature to the left corresponds with the diagram.



Some diagrams will include finger numbers as shown here. On certain exercises, the finger numbers will be obvious, so they won't be indicated. For example, the exercise above is played on the 1st, 2nd, 3rd, and 4th frets. Therefore, you would use your 1st, 2nd, 3rd, and 4th fingers consecutively.



## ***Practicing Tips***

Use Proper Technique. Technique is best learned by having someone actually show you, or from your own experimentation. Here are a few basic playing tips to help beginners:

1. Thumb should be behind the neck. It should be approximately where the second finger is on the opposite side. This allows the playing hand to open up so greater stretches can be achieved.
2. Fingers should be on their tips. Correct finger position will improve your tone and sustain.
3. Play softly. Pressing lightly on the strings is a good way to improve tone quality. Picking gently with the very tip of the pick will also improve your playing.

Take Your Time. Although *The Ultimate Guitar Workout* will speed up your progress dramatically, it is important to remember that you can't learn to play a musical instrument in one day. The amount of time it takes you to complete this entire book will depend on the ability level you're at when you start, and how much time you practice each day. Never rush through an exercise just to get it out of the way.

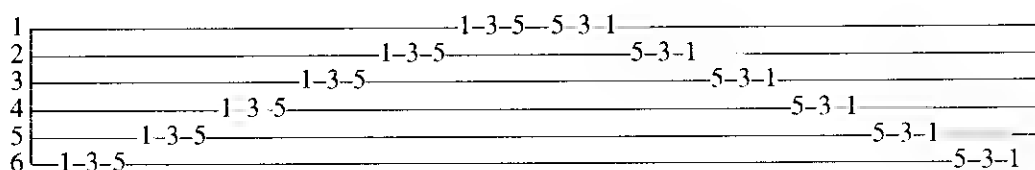
Repeat the Exercises. The more times you play an exercise the better your workout will be. Play until your hands feel tired, rest for a minute, and then play it again. It is also a good idea to go back to an old exercise from time to time. We suggest that you redo some exercises after you complete each chapter. This will insure that you get a complete and thorough workout.

Don't Skip Anything. Some of the exercises that you'll learn at the beginning of the book may help you later. Some advanced players will have an easy time with the exercises in the first few chapters. We recommend that you give them a try anyway. You might find some of them challenging. If not, use them as warm-up exercises to loosen up your fingers.

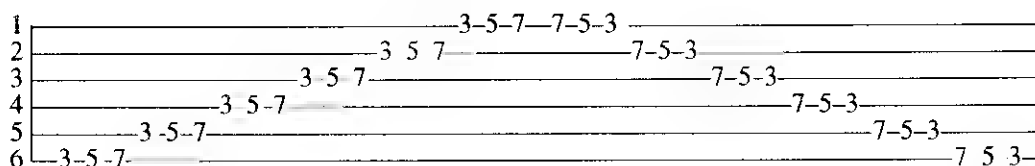
## ***Special Notes***

Up and Down the Fretboard. Some guitarists, especially beginners, get confused when the words "up" and "down" are used to refer to the fretboard. When we use the words "up" and "down" we are referring to the pitch of the notes. For example, as you go from the first fret to the twelfth, you are moving up the guitar neck since the notes are going up in pitch.

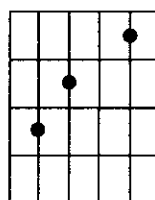
Transposing an Exercise. Everything in this book can be moved to another location on the guitar neck. Here is an example. Look at this exercise that starts on first fret.



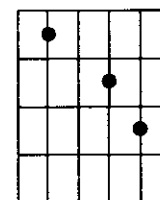
The next exercise is exactly the same except that we've moved all the notes up two frets. Now you can play the same exercise starting on the third fret. Transposing can be very useful if you want to move chords, scales, or entire exercises.



Left Handed Guitarists. If you are a left handed guitarist, simply reverse all of the diagrams. Here is how a C major chord would look if it were reversed.



Right Handed



Left Handed

***Part 1***  
***Getting In Shape***



# ***Chapter 1***

## ***Playing Techniques And Exercises***

---

This chapter contains exercises for guitarists of all ability levels. Many of these techniques will be used throughout the book. They will improve the dexterity of both your left and right hand. Beginners should learn at least one of the alternate picking techniques before going on to the other chapters.

Chapter 1 contains the following exercises:

- Alternate Picking
- Picking Patterns
- Speed Picking
- Hammer Ons And Pull Offs
- Rolling
- Tapping

Alternate picking is the most common picking technique used today. Two different forms of this picking method are shown here. It is a good idea to try them both and stick with the one you feel most comfortable with. A few exercises have been included for both types of picking.

### Exercise 1a

[illegible]

### Exercise 1b

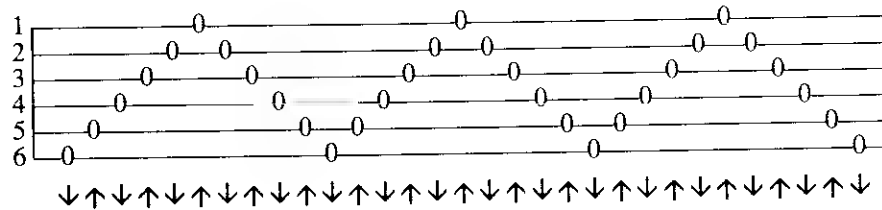
A 6x6 grid with arrows and numbers. The arrows are arranged in a pattern that suggests a flow from the bottom-left towards the top-right. The numbers are placed in the grid cells as follows:

				0 0 0	
			0 0 0		0 0 0
		0 0 0			0 0 0
	0 0 0				
0 0 0					

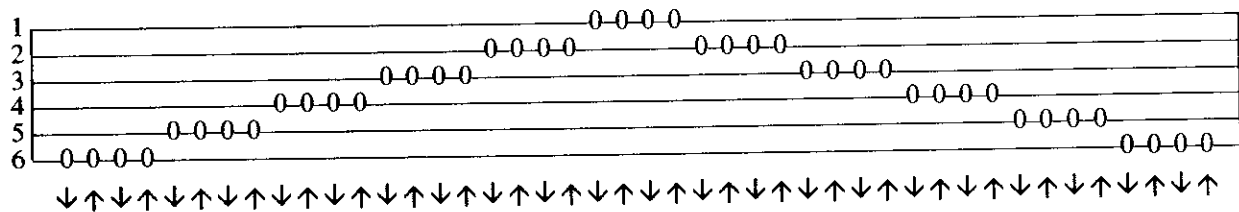
The arrows are arranged in a pattern that suggests a flow from the bottom-left towards the top-right. The numbers are placed in the grid cells as follows:

\_\_\_\_\_

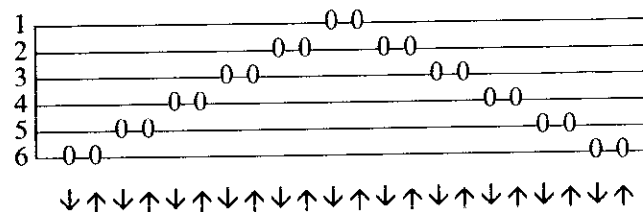
### Exercise 1c



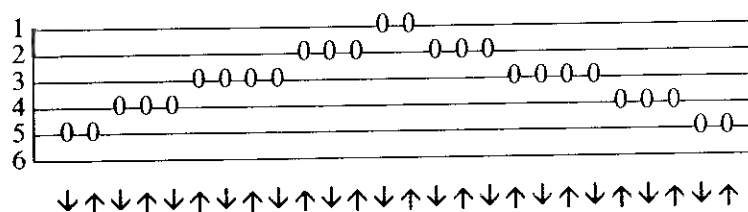
### Exercise 1a



### Exercise 1a



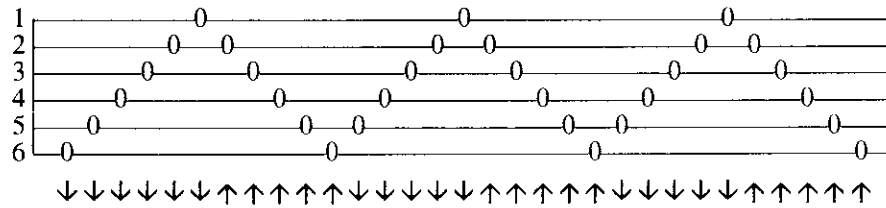
### Exercise 1



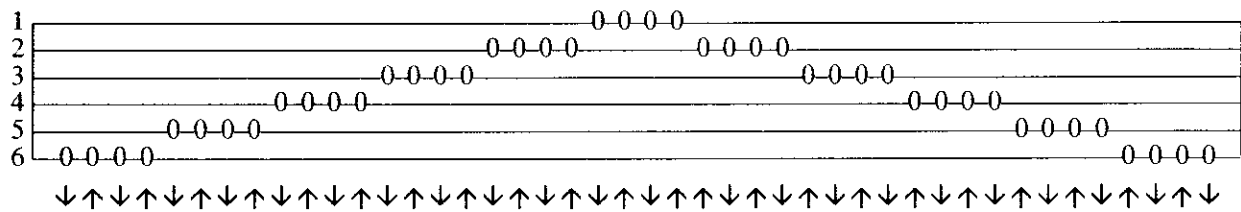


# Cross Picking

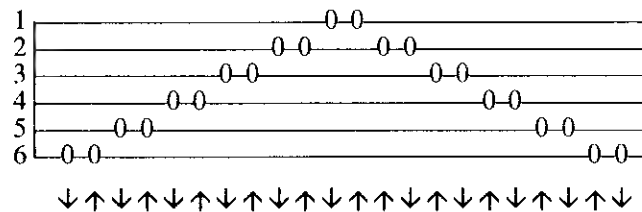
## Exercise 1g



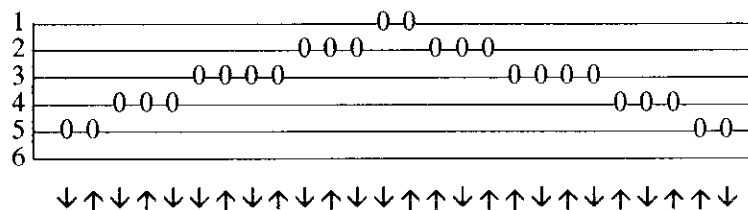
## Exercise 1h



## Exercise 1i



## Exercise 1j



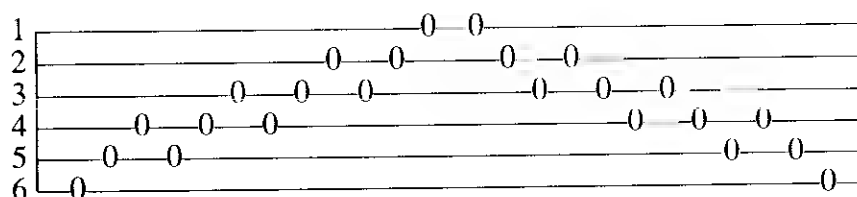
## ***Exercise #2***

### ***Picking Patterns***

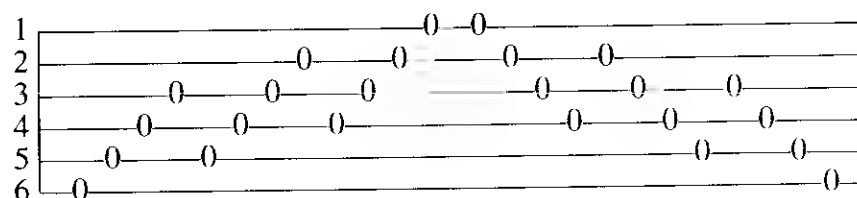
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These open string picking patterns are great for improving your accuracy with the pick. Use one of the alternate picking techniques shown earlier.

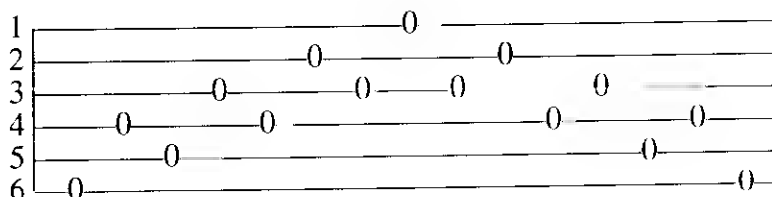
#### ***Exercise 2a***



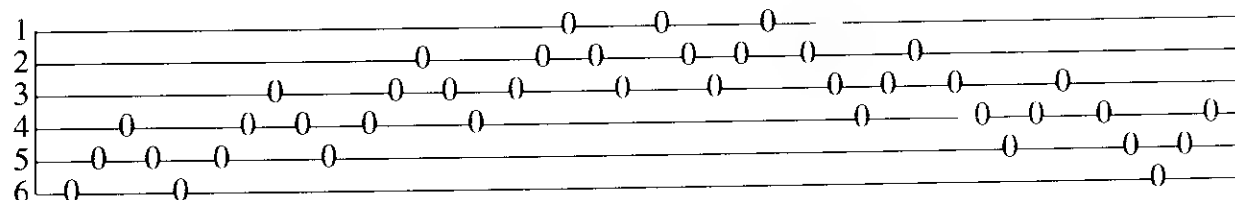
#### ***Exercise 2b***



#### ***Exercise 2c***



#### ***Exercise 2d***



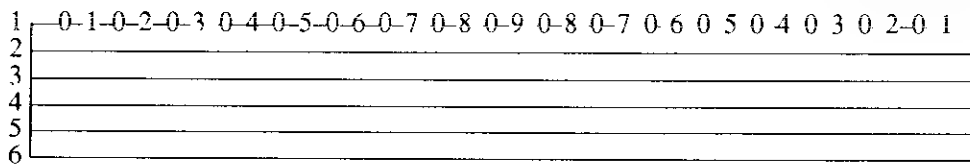
## ***Exercise #3***

### ***Speed Picking***

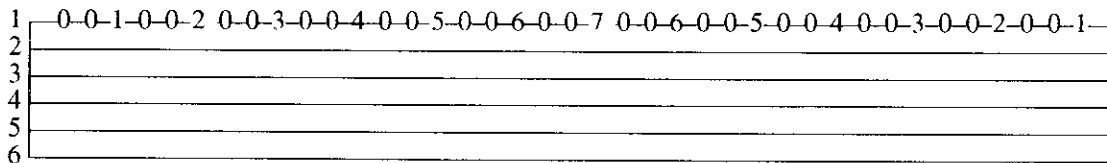
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Play the notes on this exercise with any finger(s) you like. The goal of this exercise is to build up your picking speed by constantly alternating your picking on a single string. Play as far up and down the fretboard as you can.

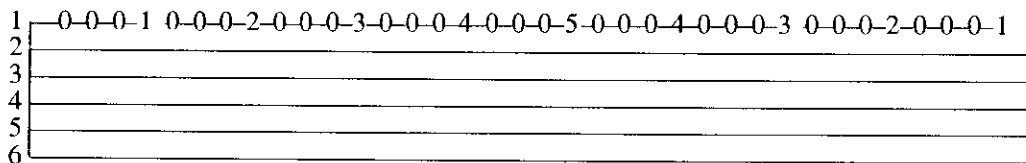
#### ***Exercise 3a***



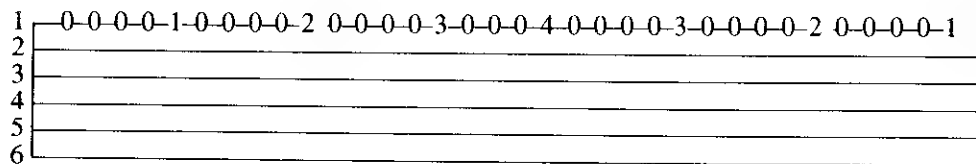
#### ***Exercise 3b***



#### ***Exercise 3c***



#### ***Exercise 3d***



## **Exercise #4**

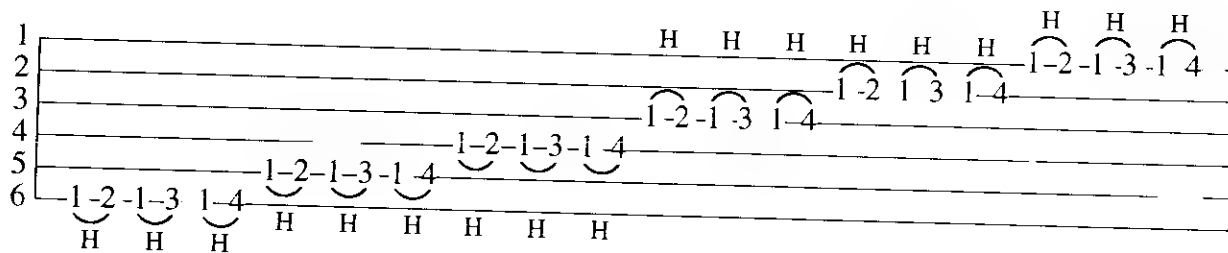
### **Hammer Ons And Pull Offs**

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There are times when guitarists don't pick every note that they play. Hammer ons and pull offs are often used to create a smooth, quick transition from one note to the next.

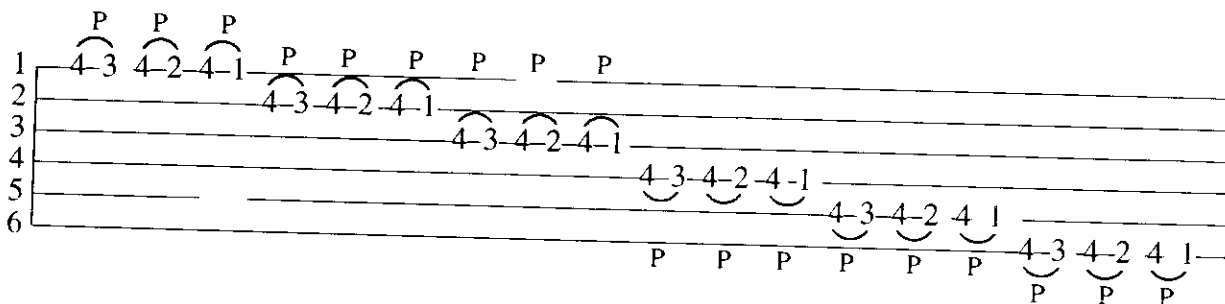
**Hammer Ons.** A curved line with the letter "H" is used on the tablature to indicate a hammer on. Follow along with the exercise below as this technique is explained. Begin by picking the note on the first fret. Play the second note by placing your finger on the string without picking. You may have to hit the string forcefully to get the note to sound right. It is also a good idea to use the tip of your finger, this will improve sound quality. Continue this exercise picking only the notes on the first fret.

#### **Exercise 4a**



**Pull Offs.** Like hammer ons, only one note is picked when playing a pull off. Again, follow along with the tablature below. Pick the first note of this exercise. Now, place a finger on the third fret and immediately release the other. Pull the string slightly away from you as you let it go. This causes the note on the third fret to be sounded. The letter "P" with a curved line is used to indicate a pull off.

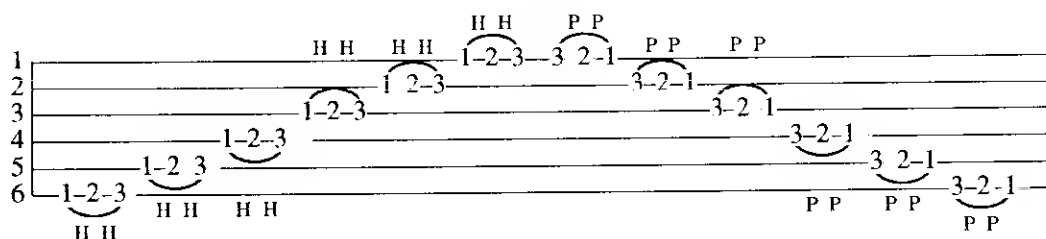
#### **Exercise 4b**



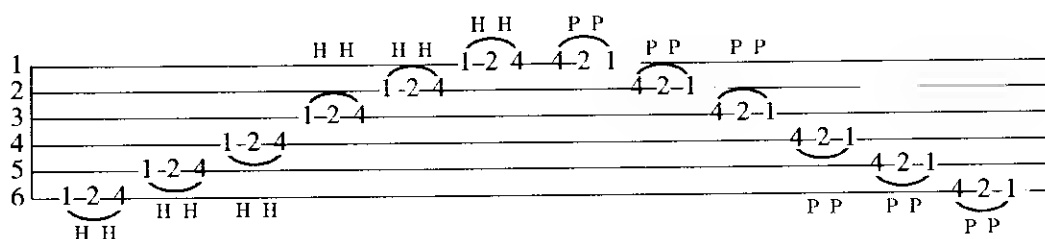
## **Exercise #5** **Rolling**

Rolling is hammering or pulling off to more than one note. On these exercises, pick only one note per string.

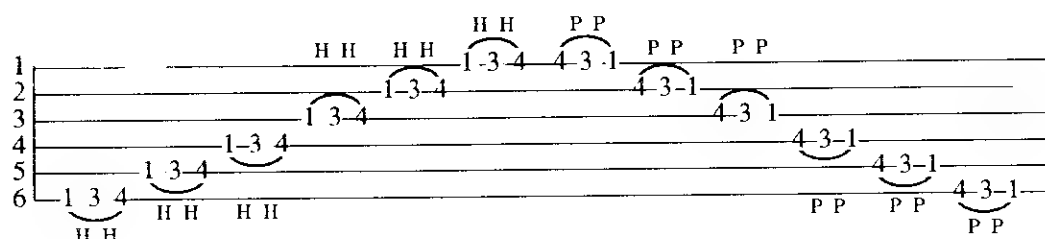
### **Exercise 5a**



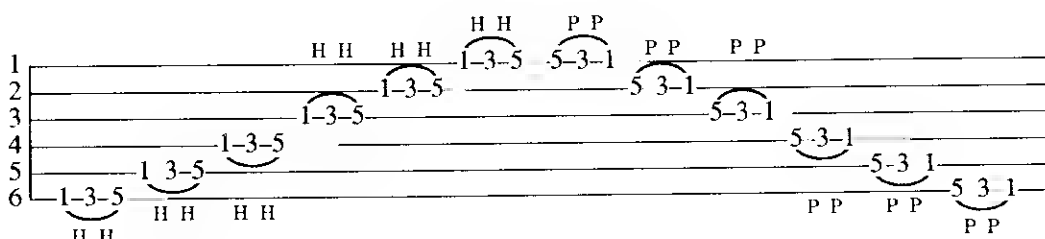
### **Exercise 5b**



### **Exercise 5c**



### **Exercise 5d**



Here are some advanced rolling exercises. You will have to use hammer ons and pull offs on each string this time. Remember, only pick once per string.

### Exercise 5e

Exercise 5e consists of two systems of six strings each. The first system shows rolling exercises on strings 1-6. String 1 has a picking pattern H H P P and a rolling exercise 1-2-3-2-1. String 2 has a picking pattern H H P P and a rolling exercise 1-2-3-2-1. String 3 has a picking pattern H H P P and a rolling exercise 1-2-3-2-1. String 4 has a picking pattern H H P P and a rolling exercise 1-2-3-2-1. String 5 has a picking pattern H H P P and a rolling exercise 1-2-3-2-1. String 6 has a picking pattern H H P P and a rolling exercise 1-2-3-2-1. The second system shows rolling exercises on strings 1-6. String 1 has a picking pattern P P H H and a rolling exercise 3-2-1-2-3. String 2 has a picking pattern P P H H and a rolling exercise 3-2-1-2-3. String 3 has a picking pattern P P H H and a rolling exercise 3-2-1-2-3. String 4 has a picking pattern P P H H and a rolling exercise 3-2-1-2-3. String 5 has a picking pattern P P H H and a rolling exercise 3-2-1-2-3. String 6 has a picking pattern P P H H and a rolling exercise 3-2-1-2-3.

### Exercise 5f

Exercise 5f consists of two systems of six strings each. The first system shows rolling exercises on strings 1-6. String 1 has a picking pattern H H P P and a rolling exercise 1-2-4-2-1. String 2 has a picking pattern H H P P and a rolling exercise 1-2-4-2-1. String 3 has a picking pattern H H P P and a rolling exercise 1-2-4-2-1. String 4 has a picking pattern H H P P and a rolling exercise 1-2-4-2-1. String 5 has a picking pattern H H P P and a rolling exercise 1-2-4-2-1. String 6 has a picking pattern H H P P and a rolling exercise 1-2-4-2-1. The second system shows rolling exercises on strings 1-6. String 1 has a picking pattern P P H H and a rolling exercise 4-2-1-2-4. String 2 has a picking pattern P P H H and a rolling exercise 4-2-1-2-4. String 3 has a picking pattern P P H H and a rolling exercise 4-2-1-2-4. String 4 has a picking pattern P P H H and a rolling exercise 4-2-1-2-4. String 5 has a picking pattern P P H H and a rolling exercise 4-2-1-2-4. String 6 has a picking pattern P P H H and a rolling exercise 4-2-1-2-4.

## Exercise 5g

Exercise 5g consists of two systems of six staves each. The first system includes fingerings (1-3-4-3-1) and articulations (H H P P). The second system includes fingerings (4-3-1-3-4) and articulations (P P H H).

## Exercise 5h

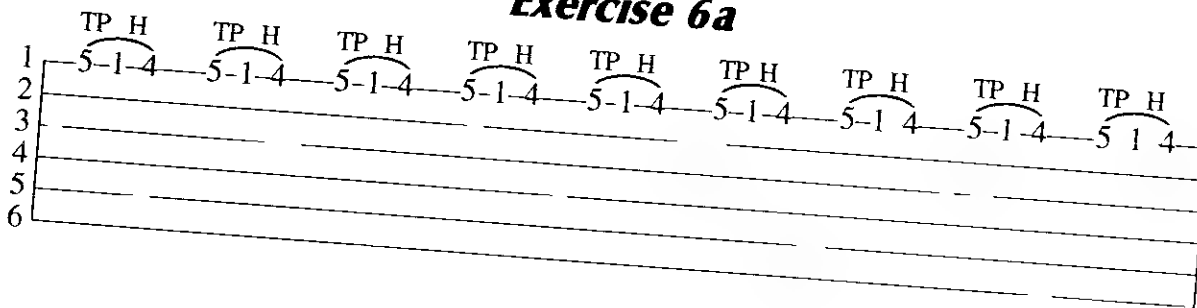
Exercise 5h consists of two systems of six staves each. The first system includes fingerings (1-3-5-3-1) and articulations (H H P P). The second system includes fingerings (5-3-1-3-5) and articulations (P P H H).

## Exercise #6 Tapping

Tapping has become very popular with today's rock guitarists. It can also be used as an exercise. Even if you never plan on using tapping when playing songs, you might want to give it a try anyway. You'll be surprised at how it can increase left hand strength and accuracy. To perform this technique, you will actually have to combine three exercises, tapping, hammer ons, and pull offs. Here's how it's done.

No picking is required for this exercise. It's okay to keep the pick in your hand however. Hold the pick in the normal fashion, between your thumb and index finger. Now look at the tablature below and follow along closely. Start by placing your first finger on the first fret. Hold that finger there for the entire exercise. Play the note on the fifth fret by placing the middle finger of your picking hand right on the fret. This is indicated by the letter "T" on the tabature. The next note is sounded by pulling off with the same finger. Finally, hammer on to the fourth fret with the fourth finger of your left hand, and repeat the exercise. The finger that does the hammering will get a great workout because of the quick repetitive motion. Of course you will have to practice this exercise quite a bit before you can build up your playing speed. Repeat the exercise as much as you like, then move to the next string. This exercise should be done on all six strings.

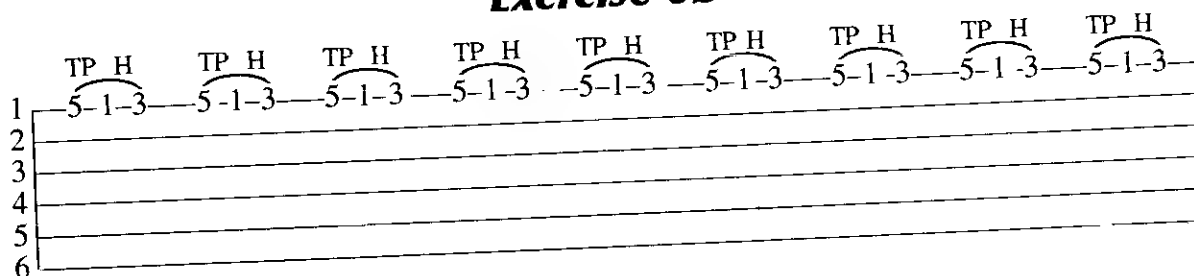
### Exercise 6a



Note: Some guitarists hold the pick between their thumb and middle finger, and tap with their index finger. Some don't even hold the pick at all. Whatever method you choose to use on this exercise is fine. Also, if you want to get a really good sound with this technique, use an electric guitar and distortion.

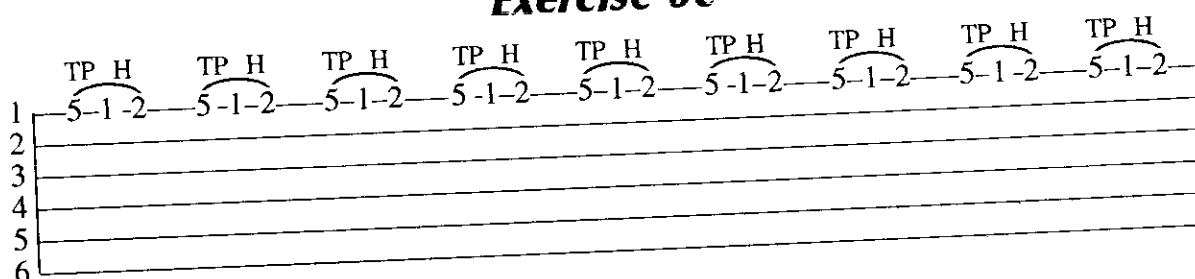


### Exercise 6b



A musical staff with six lines, numbered 1 to 6 on the left. The first line contains a sequence of nine triplets, each marked with a slur and 'TP H' above it. The triplets are: 5-1-3, 5-1-3, 5-1-3, 5-1-3, 5-1-3, 5-1-3, 5-1-3, 5-1-3, and 5-1-3. The remaining five lines of the staff are empty.

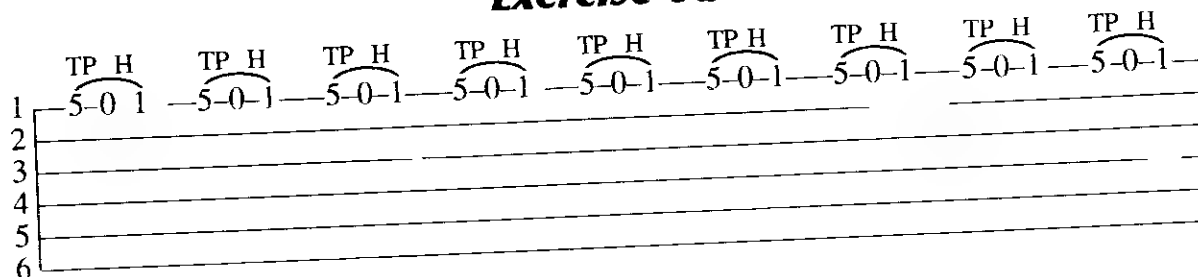
### Exercise 6c



A musical staff with six lines, numbered 1 to 6 on the left. The first line contains a sequence of nine triplets, each marked with a slur and 'TP H' above it. The triplets are: 5-1-2, 5-1-2, 5-1-2, 5-1-2, 5-1-2, 5-1-2, 5-1-2, 5-1-2, and 5-1-2. The remaining five lines of the staff are empty.

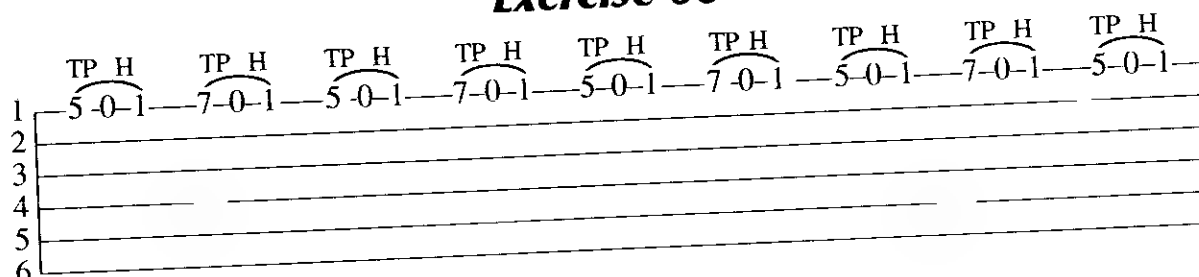
Exercises 6d and 6e are a little different. You will have to pull off to an open string. Make sure you use your first finger for the hammering part of these exercises.

### Exercise 6d



A musical staff with six lines, numbered 1 to 6 on the left. The first line contains a sequence of nine triplets, each marked with a slur and 'TP H' above it. The triplets are: 5-0-1, 5-0-1, 5-0-1, 5-0-1, 5-0-1, 5-0-1, 5-0-1, 5-0-1, and 5-0-1. The remaining five lines of the staff are empty.

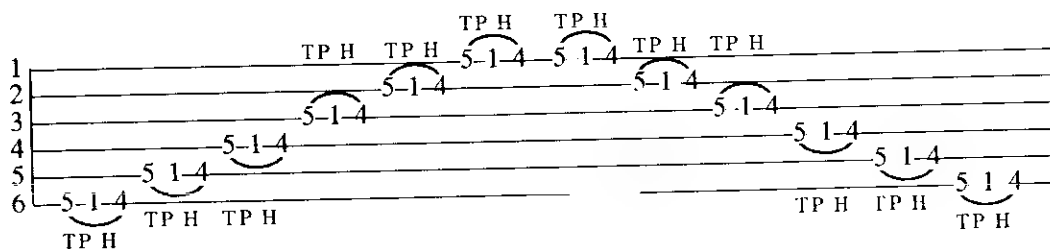
### Exercise 6e



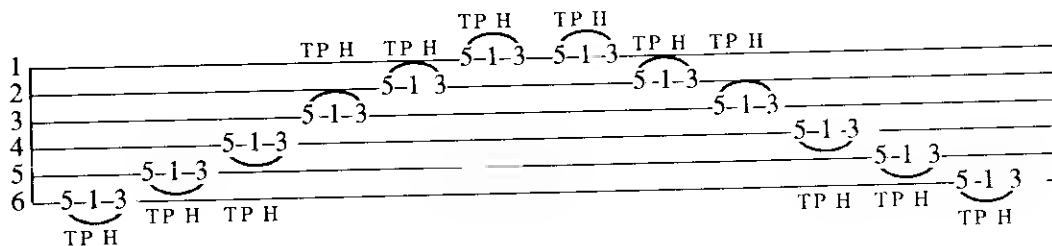
A musical staff with six lines, numbered 1 to 6 on the left. The first line contains a sequence of nine triplets, each marked with a slur and 'TP H' above it. The triplets are: 5-0-1, 7-0-1, 5-0-1, 7-0-1, 5-0-1, 7-0-1, 5-0-1, 7-0-1, and 5-0-1. The remaining five lines of the staff are empty.

These four tapping exercises require you to switch strings after each tap. It takes a lot of practice to perfect this. At first you might have trouble hitting the correct string, or you may hit more than one string at a time. The best way to do these exercises is to start off slowly and work your way up to a fast pace.

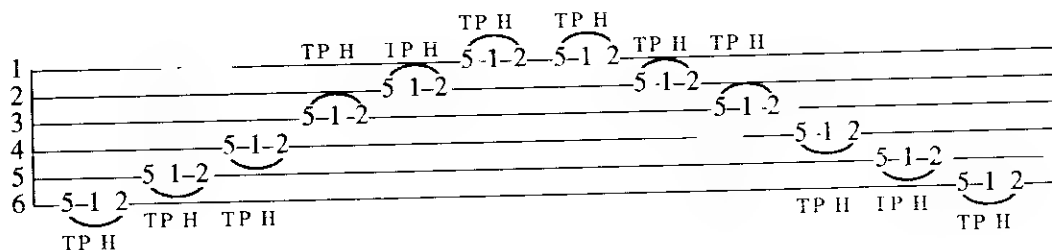
### Exercise 6f



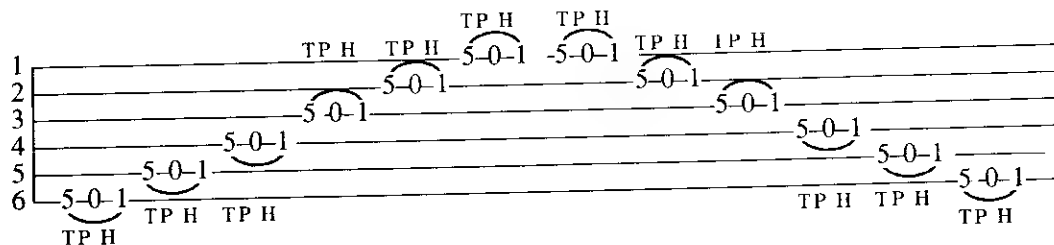
### Exercise 6g



### Exercise 6h



### Exercise 6i



These tapping exercises require you to use an extra hammer on and pull off. This will give the hammering finger a great workout.

### ***Exercise 6j***

Exercise 6j is a tapping exercise on the first string. It consists of six groups of notes, each with a slur and a 'TP H P H' label above it. The notes are: 5-1-4-1-4, 5-1-4-1-4, 5-1-4-1-4, 5-1-4-1-4, 5-1-4-1-4, and 5-1-4-1-4. The staff has six lines, numbered 1 to 6 on the left.

### ***Exercise 6k***

Exercise 6k is a tapping exercise on the first string. It consists of six groups of notes, each with a slur and a 'TP H P H' label above it. The notes are: 5-1-3-1-3, 5-1-3-1-3, 5-1-3-1-3, 5-1-3-1-3, 5-1-3-1-3, and 5-1-3-1-3. The staff has six lines, numbered 1 to 6 on the left.

### ***Exercise 6l***

Exercise 6l is a tapping exercise on the first string. It consists of six groups of notes, each with a slur and a 'TP H P H' label above it. The notes are: 5-1-2-1-2, 5-1-2-1-2, 5-1-2-1-2, 5-1-2-1-2, 5-1-2-1-2, and 5-1-2-1-2. The staff has six lines, numbered 1 to 6 on the left.

### ***Exercise 6m***

Exercise 6m is a tapping exercise on the first string. It consists of six groups of notes, each with a slur and a 'TP H P H' label above it. The notes are: 5-0-1-0-1, 5-0-1-0-1, 5-0-1-0-1, 5-0-1-0-1, 5-0-1-0-1, and 5-0-1-0-1. The staff has six lines, numbered 1 to 6 on the left.

## ***Chapter 2***

### ***Basic Fingering Exercises***

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In this chapter we introduce you to a variety of different finger combinations. These exercises will greatly improve finger coordination for beginner guitarists. Advanced musicians can use them as warm-up drills.

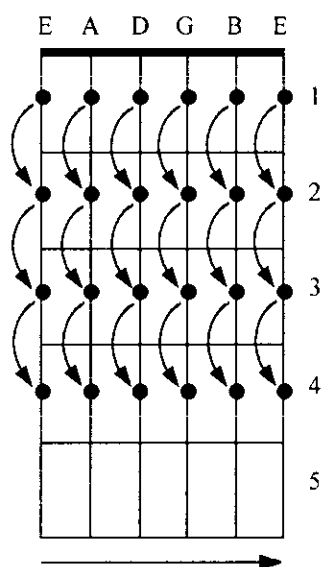
Chapter 2 contains the following exercises:

- Straight Fingering
- Reverse Fingering
- Bi-directional Fingering
- Repeated Fingering
- Multiple Finger Combinations
- Complete Fingering

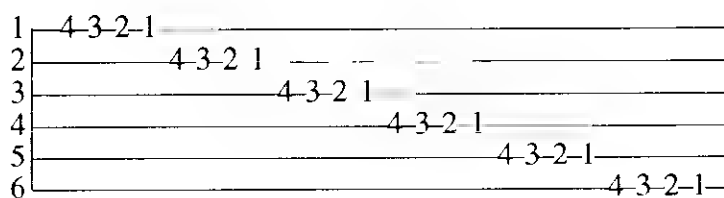
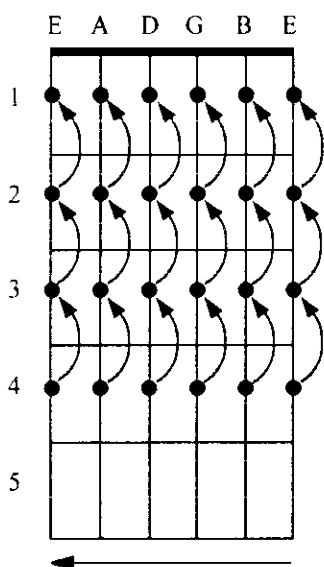
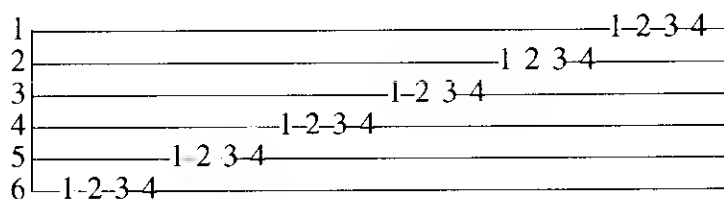
# Exercise #1

## Straight Fingering

Play the same notes on each string using one of the alternate picking techniques shown earlier. Start off slowly and evenly, giving each note the same duration. This will make it easier to obtain speed and coordination. Beginners may feel some discomfort in their hands at first. This will eventually go away as your hands get stronger.

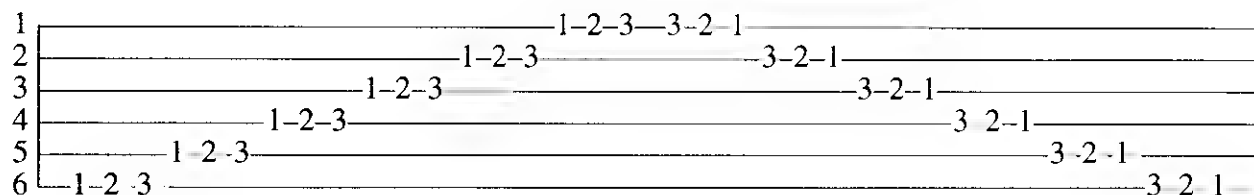


### Exercise 1a

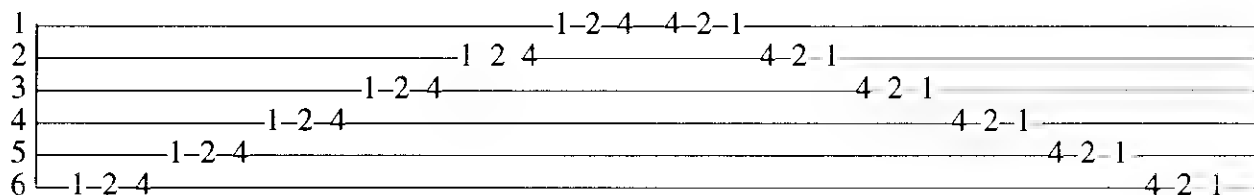


The next four exercises use three fingers per string. Remember to use the correct fingers. The fret numbers are the same as the finger numbers for all of these exercises. When a note is played on the fifth fret, use your fourth finger.

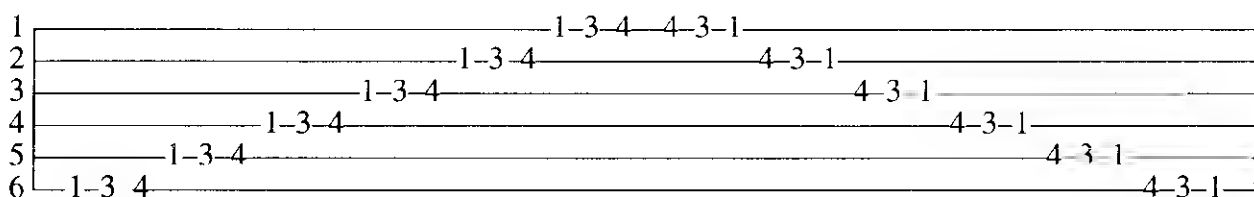
### ***Exercise 1b***



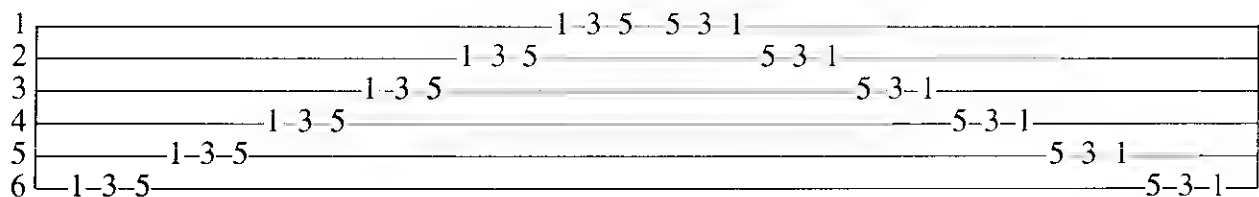
### ***Exercise 1c***



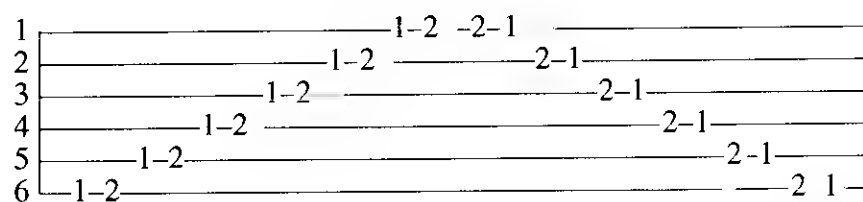
### ***Exercise 1d***



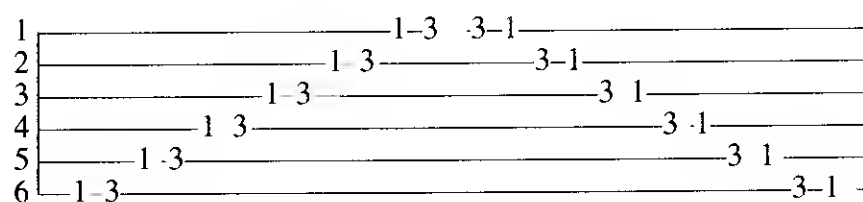
### ***Exercise 1e***



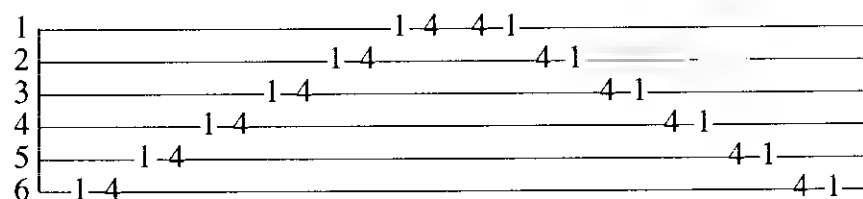
### Exercise 1f



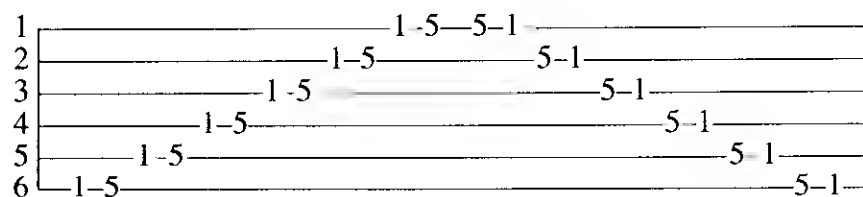
### Exercise 1g



### Exercise 1h



### Exercise 1i

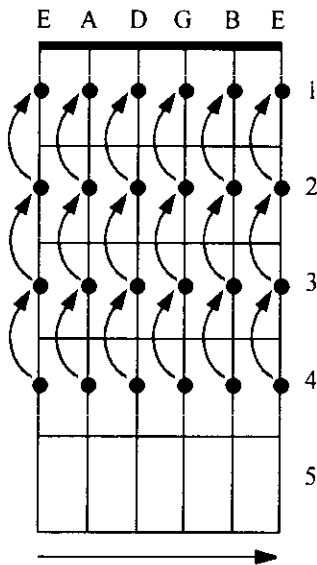


## **Exercise #2**

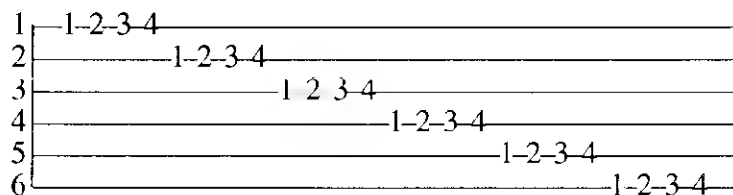
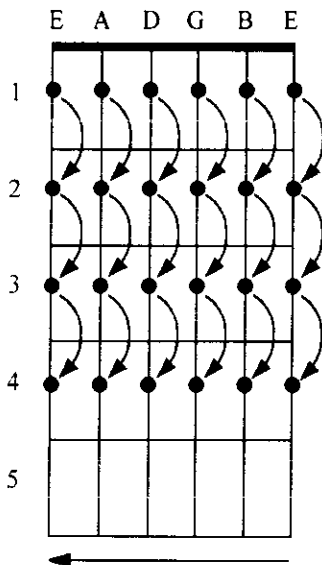
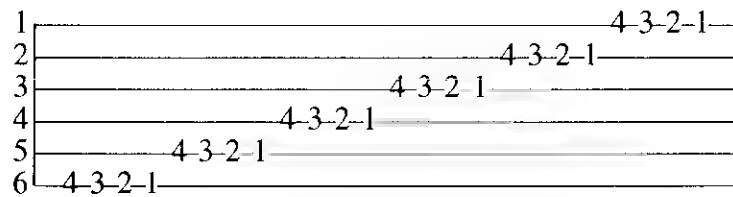
### **Reverse Fingering**

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Play the notes in the reverse order that they were played on the previous exercise. The picking direction should stay the same however.



### **Exercise 2a**





### Exercise 2b

Exercise 2b shows six staves, each with a descending sequence (3-2-1) and an ascending sequence (1-2-3). The sequences are positioned on the staves as follows:

- Staff 1: 3 2 1 — 1 2 3
- Staff 2: 3 2 1 — 1-2-3
- Staff 3: 3-2-1 — 1 2 3
- Staff 4: 3 2 1 — 1 2 3
- Staff 5: 3-2-1 — 1-2-3
- Staff 6: 3-2-1 — 1 2 3

### Exercise 2c

Exercise 2c shows six staves, each with a descending sequence (4-2-1) and an ascending sequence (1-2-4). The sequences are positioned on the staves as follows:

- Staff 1: 4 2 1 — 1 2 4
- Staff 2: 4 2 1 — 1-2-4
- Staff 3: 4-2-1 — 1 2 4
- Staff 4: 4-2-1 — 1-2-4
- Staff 5: 4-2-1 — 1-2-4
- Staff 6: 4-2-1 — 1 2 4

### Exercise 2d

Exercise 2d shows six staves, each with a descending sequence (4-3-1) and an ascending sequence (1-3-4). The sequences are positioned on the staves as follows:

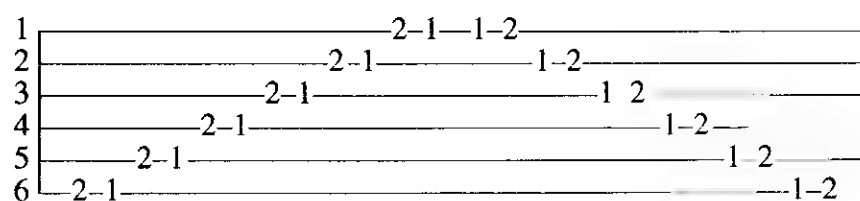
- Staff 1: 4 3 1 — 1 3 4
- Staff 2: 4 3 1 — 1-3 4
- Staff 3: 4 3 1 — 1 3 4
- Staff 4: 4 3 1 — 1 3 4
- Staff 5: 4-3-1 — 1-3 4
- Staff 6: 4 3 1 — 1 3 4

### Exercise 2e

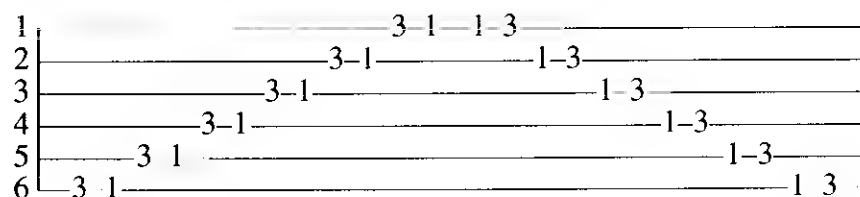
Exercise 2e shows six staves, each with a descending sequence (5-3-1) and an ascending sequence (1-3-5). The sequences are positioned on the staves as follows:

- Staff 1: 5 3 1 — 1 3 5
- Staff 2: 5 3 1 — 1 3 5
- Staff 3: 5-3-1 — 1-3-5
- Staff 4: 5-3-1 — 1-3 5
- Staff 5: 5-3-1 — 1-3-5
- Staff 6: 5-3-1 — 1-3-5

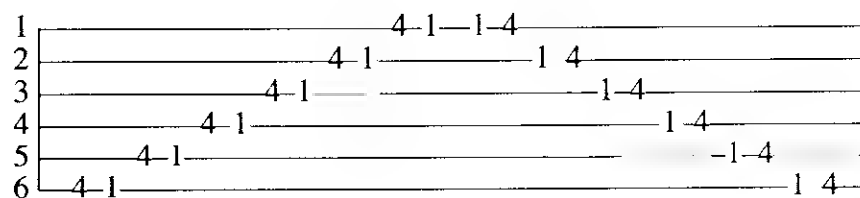
### Exercise 2f



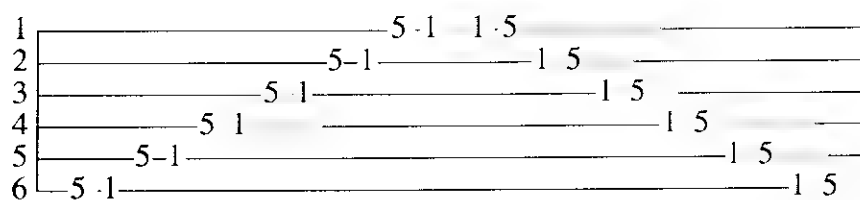
### Exercise 2g



### Exercise 2h



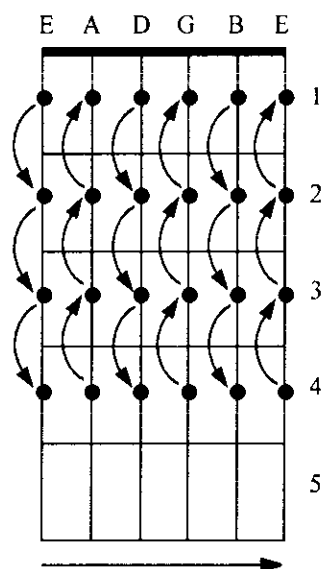
### Exercise 2i



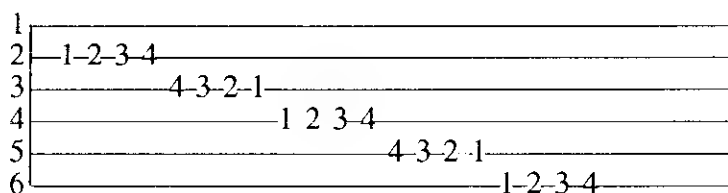
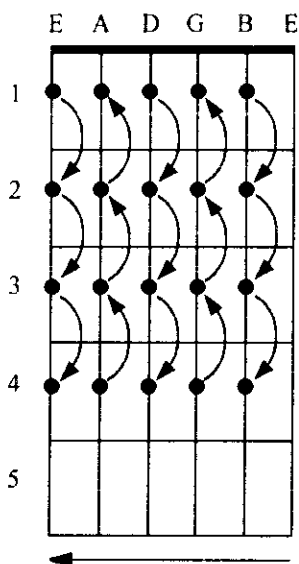
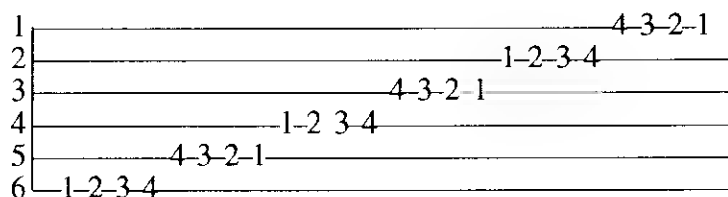
## **Exercise #3** **Bi-directional Fingering**

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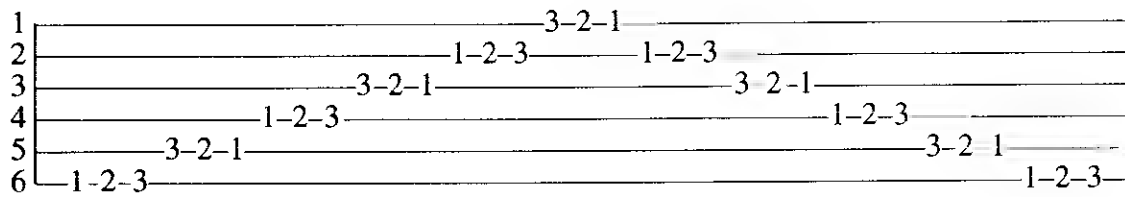
Change direction after you play each string on this exercise. Follow the arrows and the tablature closely. These bi-directional exercises are great for improving coordination.



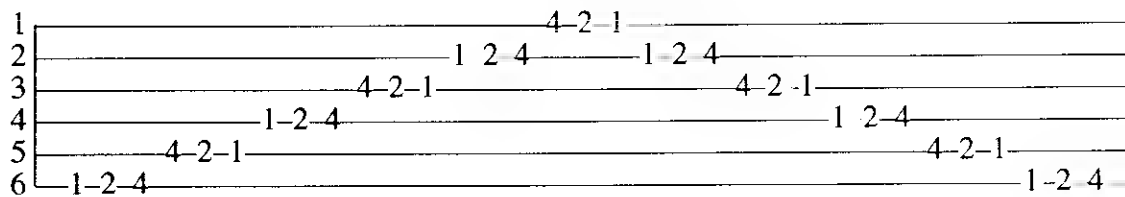
### **Exercise 3a**



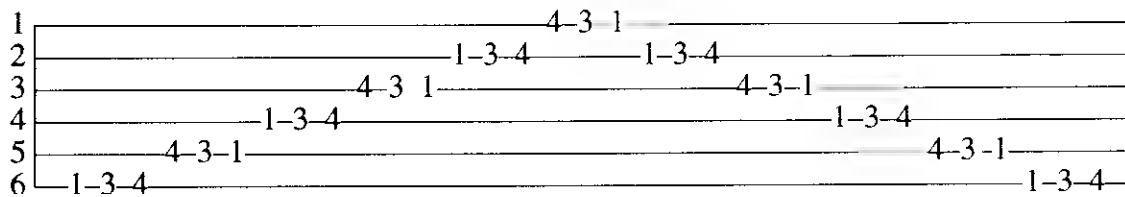
### Exercise 3b



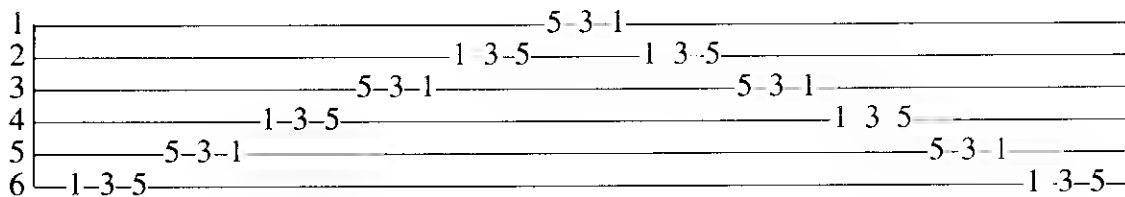
### Exercise 3c



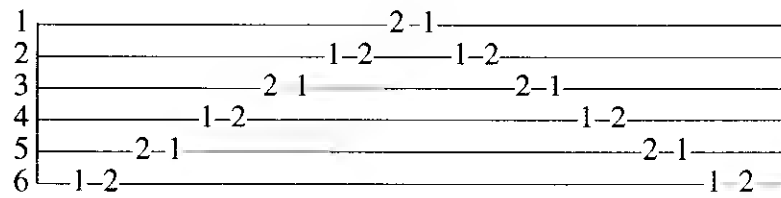
### Exercise 3d



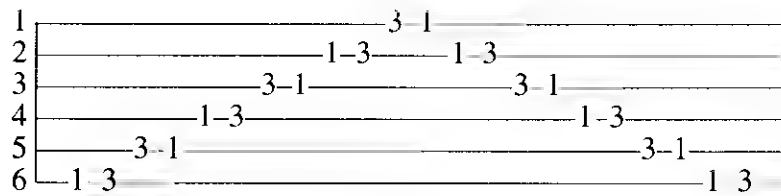
### Exercise 3e



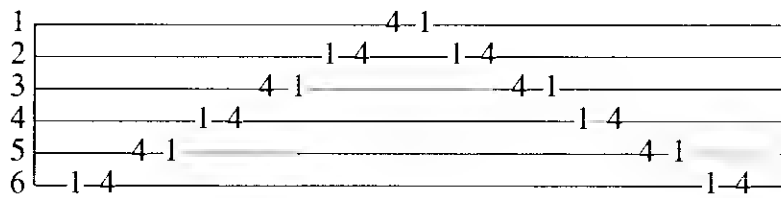
### Exercise 3f



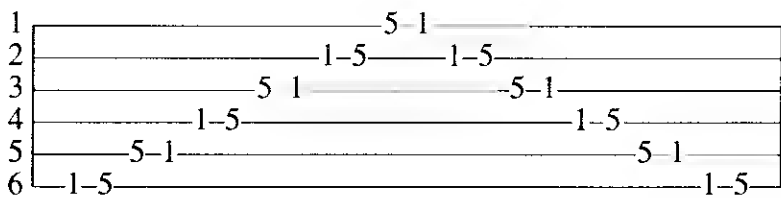
### Exercise 3g



### Exercise 3h



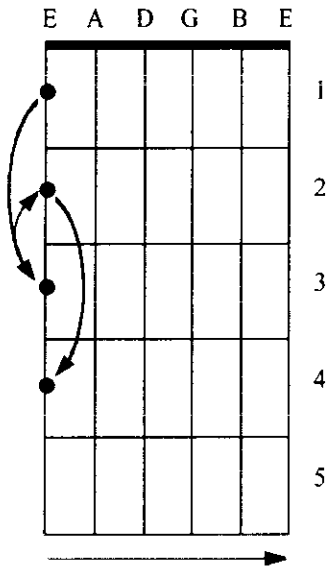
### Exercise 3i



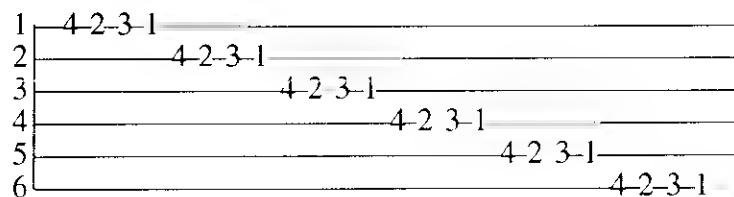
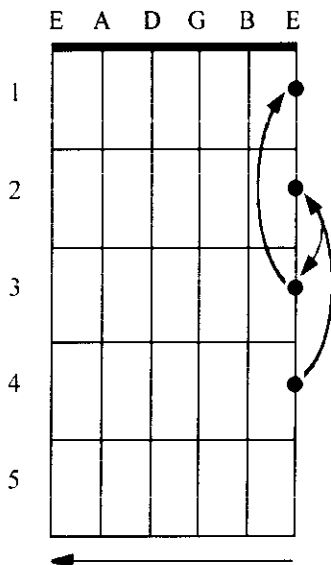
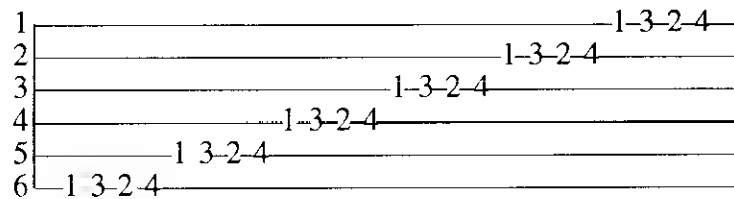
## **Exercise #4** **Out Of Sequence**

---

The notes are played in a different order on this exercise. You will be playing 1-3-2-4 instead of the 1-2-3-4 combination used on the previous exercises. Follow the arrows and tablature closely.



### **Exercise 4a**



### Exercise 4b

Exercise 4b is a six-staff musical exercise. The fingerings are as follows:

- Staff 1: 1-3-2-2-3-1
- Staff 2: 1-3-2-2-3-1
- Staff 3: 1-3-2-2-3-1
- Staff 4: 1-3-2-2-3-1
- Staff 5: 1-3-2-2-3-1
- Staff 6: 1-3-2-2-3-1

### Exercise 4c

Exercise 4c is a six-staff musical exercise. The fingerings are as follows:

- Staff 1: 1-4-2-2-4-1
- Staff 2: 1-4-2-2-4-1
- Staff 3: 1-4-2-2-4-1
- Staff 4: 1-4-2-2-4-1
- Staff 5: 1-4-2-2-4-1
- Staff 6: 1-4-2-2-4-1

### Exercise 4d

Exercise 4d is a six-staff musical exercise. The fingerings are as follows:

- Staff 1: 1-4-3-3-4-1
- Staff 2: 1-4-3-3-4-1
- Staff 3: 1-4-3-3-4-1
- Staff 4: 1-4-3-3-4-1
- Staff 5: 1-4-3-3-4-1
- Staff 6: 1-4-3-3-4-1

### Exercise 4e

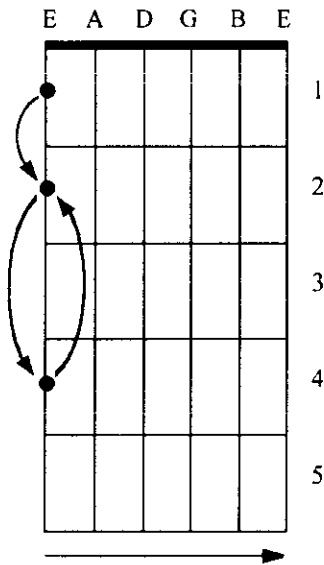
Exercise 4e is a six-staff musical exercise. The fingerings are as follows:

- Staff 1: 1-5-3-3-5-1
- Staff 2: 1-5-3-3-5-1
- Staff 3: 1-5-3-3-5-1
- Staff 4: 1-5-3-3-5-1
- Staff 5: 1-5-3-3-5-1
- Staff 6: 1-5-3-3-5-1

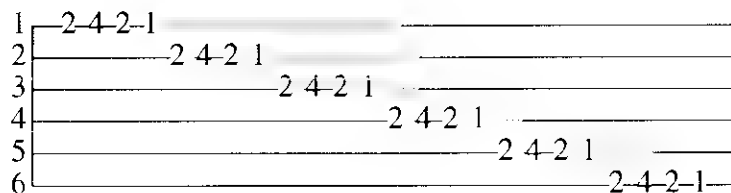
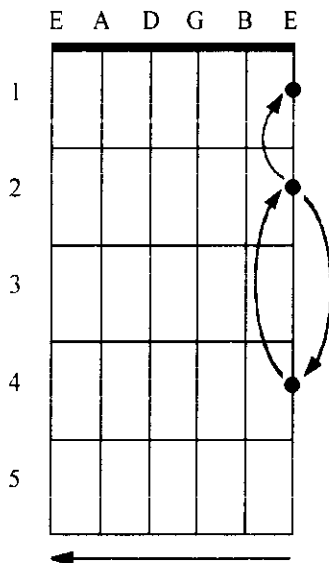
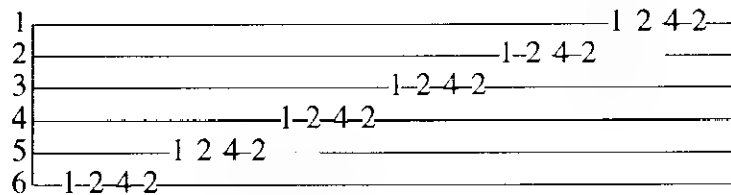
## ***Exercise #5*** ***Repeated Fingering***

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More Finger combinations can be created by repeating notes in the exercises. Notice that every other note is the same in the exercise below.



### ***Exercise 5a***





### Exercise 5b

1				1 2 3-2	2 3-2-1		
2				1-2 3-2		2-3 2-1	
3			1-2-3-2				2-3-2 1
4		1-2-3-2				2 3-2-1	
5	1-2-3-2						2 3-2-1
6	1-2-3-2						2 3-2-1

### Exercise 5c

1				1 3 4 3	3 4 3-1		
2				1 3 4 3		3 4 3-1	
3			1-3 4 3				3 4 3-1
4		1-3 4 3				3 4 3 1	
5	1-3 4 3						3 4 3-1
6	1-3 4 3						3 4 3-1

### Exercise 5d

1				1-3 5-3	3-5 3-1		
2				1-3 5-3		3-5 3-1	
3			1-3 5-3				3-5 3-1
4		1-3 5-3				3-5 3-1	
5	1 3-5 3						3-5 3-1
6	1 3 5 3						3-5 3-1

### Exercise 5e

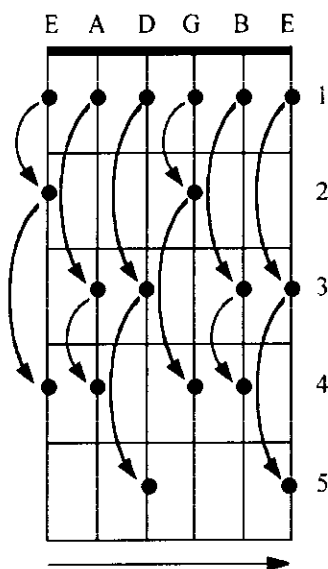
1				1-4 2-4	4 2 4 1		
2				1 4 2 4		4 2 4 1	
3			1-4 2 4				4 2 4-1
4		1 4 2 4				4 2 4-1	
5	1 4 2 4						4 2 4 1
6	1 4 2 4						4 2 4-1

## **Exercise #6**

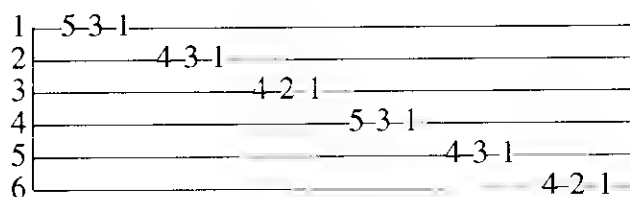
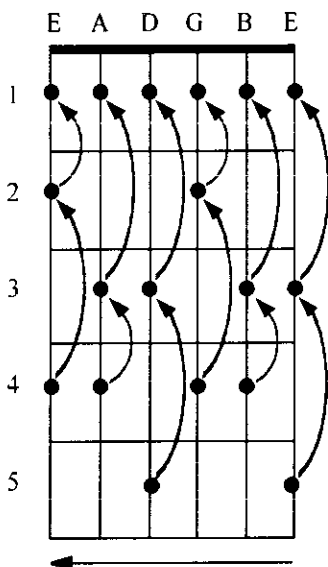
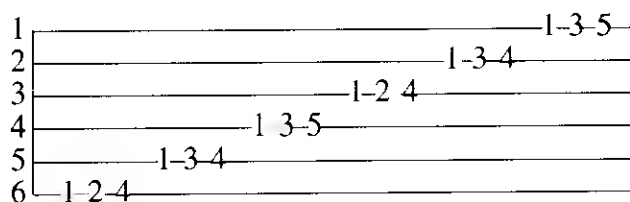
### **Multiple Finger Combinations**

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Now we will combine some of the exercises that you learned earlier. On exercise 6a, three finger combinations are used, 1-2-4, 1-3-4, and 1-3-5. Make up some of your own multiple finger combinations by playing something different on each string.



### **Exercise 6a**



### Exercise 6b

Exercise 6b shows fingerings for six lines of a musical staff. The fingerings are as follows:

- Line 1: 1-3 5 5 3 1
- Line 2: 1 3-5 5-3 1
- Line 3: 1-3 4 4-3 1
- Line 4: 1-3 4 4-3 1
- Line 5: 1 2 4 4-2 1
- Line 6: 1-2 4 4-2 1

### Exercise 6c

Exercise 6c shows fingerings for six lines of a musical staff. The fingerings are as follows:

- Line 1: 1-2 4 4 2 1
- Line 2: 1-3 4 4-3 1
- Line 3: 1 2-3 3-2 1
- Line 4: 1 2 4 4-2 1
- Line 5: 1 3 4 4-3 1
- Line 6: 1-2 3 3-2 1

### Exercise 6d

Exercise 6d shows fingerings for six lines of a musical staff. The fingerings are as follows:

- Line 1: 1-2 3-3 2 1
- Line 2: 1 4 4 1
- Line 3: 1 2-3 4 4 3-2 1
- Line 4: 1-2 3 3 2 1
- Line 5: 1-4 4 1
- Line 6: 1 2 3 4 4-3-2 1

### Exercise 6e

Exercise 6e shows fingerings for six lines of a musical staff. The fingerings are as follows:

- Line 1: 1-2 2 1
- Line 2: 1 3 3 1
- Line 3: 1 4 4 1
- Line 4: 1 2 2 1
- Line 5: 1-3 3 1
- Line 6: 1 4 4 1

### Exercise 6f

Exercise 6f is a six-line musical staff with the following fingerings: 1-4-3-3-4-1 on line 1, 1-4-3 on line 2, 3-4-1 on line 3, 1-4-2 on line 4, 2-4-1 on line 5, and 1-3-2 on line 6.

### Exercise 6g

Exercise 6g is a six-line musical staff with the following fingerings: 4-3-1 1-3-4 on line 1, 1-3-4 on line 2, 4-3-1 on line 3, 4-2-1 on line 4, 1-2-4 on line 5, and 3-2-1 on line 6.

### Exercise 6h

Exercise 6h is a six-line musical staff with the following fingerings: 1-3-2-4 4-2-3-1 on line 1, 1-2-3-4 on line 2, 4-3-2-1 on line 3, 1-3-2-4 on line 4, 4-2-3-1 on line 5, and 1-2-3-4 on line 6.

### Exercise 6i

Exercise 6i is a six-line musical staff with the following fingerings: 1-3-5-3 3-5-3-1 on line 1, 1-3-4-3 on line 2, 3-4-3-1 on line 3, 1-2-3-2 on line 4, 2-3-2-1 on line 5, and 1-3-5-3 on line 6.

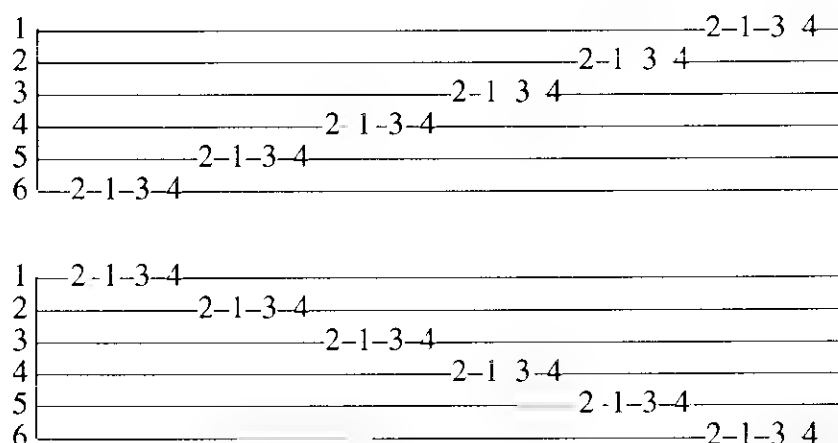
## **Exercise #7**

### **Complete Fingering**

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The list at the bottom of the page shows every possible combination for two, three, and four fingers. There is a slight difference between these exercises and the ones shown earlier in this chapter. Notice that the finger combinations stay the same in both directions. In the example below, the enlarged numbers are the fret numbers and fingering.

### **2 1 3 4**



All sixty combinations are shown below. Keep in mind that playing them all will take a long time. Here are a few suggestions on how to play the exercise.

- Play each combination once and go through all sixty without resting.
- The combinations are divided into groups of six. Play one group at a time repeating each combination as many times as you like.
- Play all of the four finger combinations first. Do the three finger exercises second, then play the remaining combinations.

1234	2134	3124	4123	123	213	312	412	12	31
1243	2143	3142	4132	124	214	314	413	13	32
1324	2314	3214	4213	132	231	321	421	14	34
1342	2341	3241	4231	134	234	324	423	21	41
1423	2413	3412	4312	142	241	341	431	23	42
1432	2431	3421	4321	143	243	342	432	24	43

## ***Chapter 3***

# ***Finger Strengthening Exercises***

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The exercises in this chapter were designed to improve your finger strength and speed. Constant repetition is important on these exercises.

Chapter 3 contains the following exercises:

Trills

Trills II

Trills III

Hyper-Extended Fingering

Lifting

Lifting II

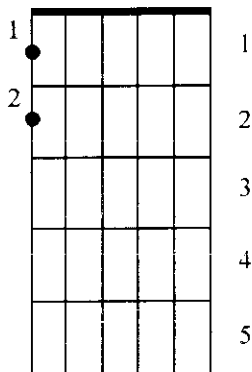
# **Exercise #1**

## **Trills**

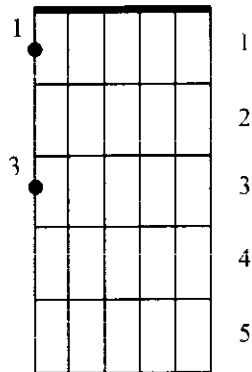
---

Rapidly alternate between the two notes indicated on the diagrams. No picking is necessary for this exercise. Hold one finger down for the entire exercise. Move the other finger up and down as fast as you can, until your hand gets tired. This is a great drill for strengthening each finger. The finger numbers are shown on the diagrams next to the black dots.

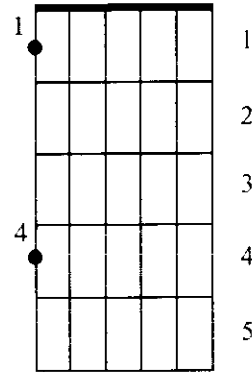
**Exercise 1a**



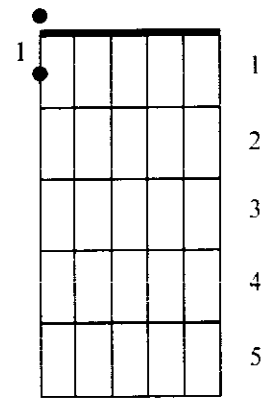
**Exercise 1b**



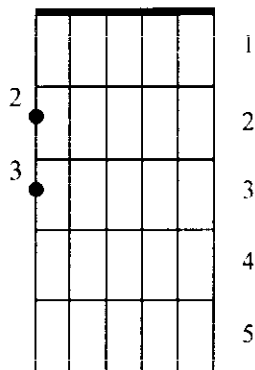
**Exercise 1c**



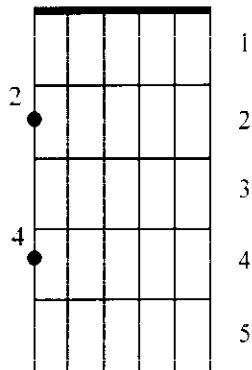
**Exercise 1d**



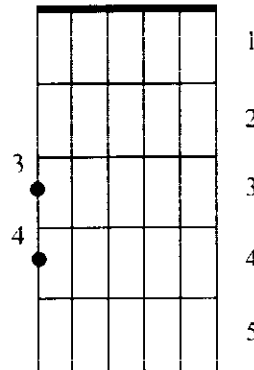
**Exercise 1e**



**Exercise 1f**



**Exercise 1g**



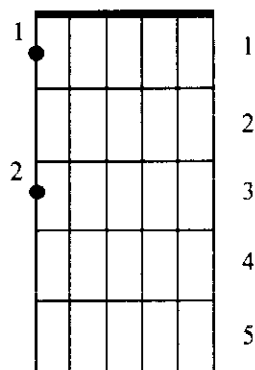
## ***Exercise #2***

### ***Trills II***

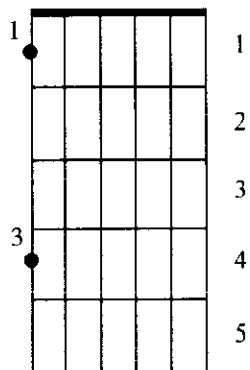
---

These trill exercises will help stretch your finger muscles. Play these just like the previous exercises. The only difference here is, a greater stretch is required. Once again, the finger numbers are shown next to the dots.

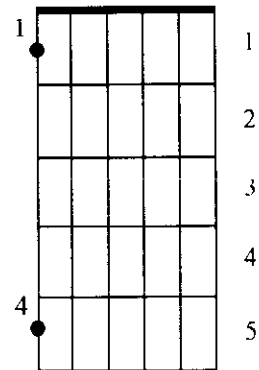
***Exercise 2a***



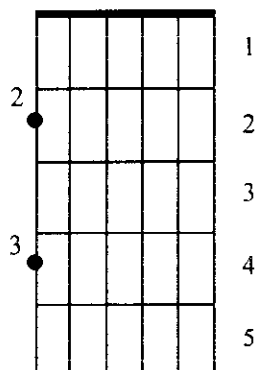
***Exercise 2b***



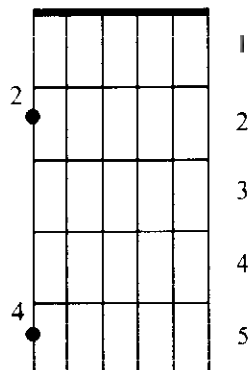
***Exercise 2c***



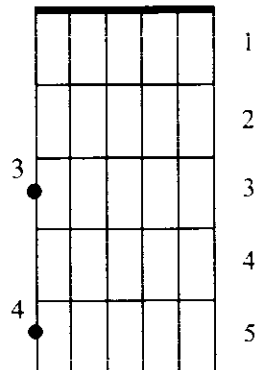
***Exercise 2d***



***Exercise 2e***



***Exercise 2f***





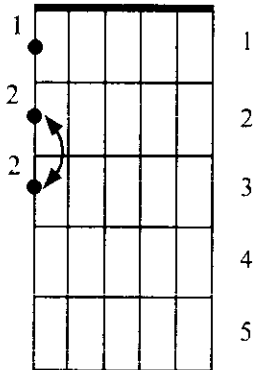
## ***Exercise #3***

### ***Trills III***

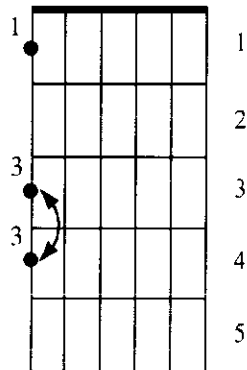
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These exercises are a combination of the last two. Hold down one finger while alternating back and forth with the other. This is indicated by the arrows on the diagrams. This will improve finger strength and it is a good stretching exercise as well.

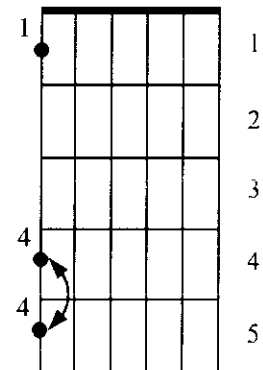
***Exercise 3a***



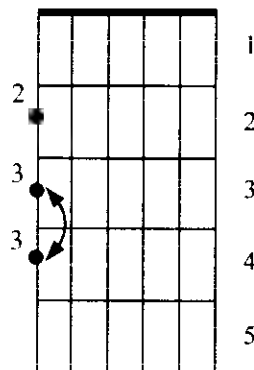
***Exercise 3b***



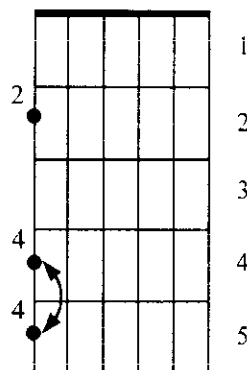
***Exercise 3c***



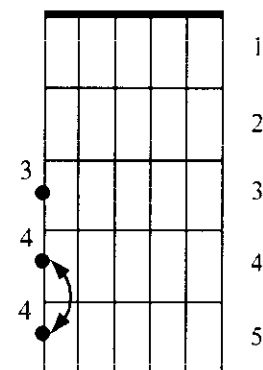
***Exercise 3d***



***Exercise 3e***



***Exercise 3f***

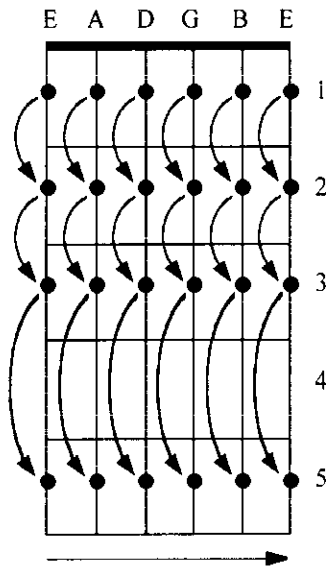


## **Exercise #4**

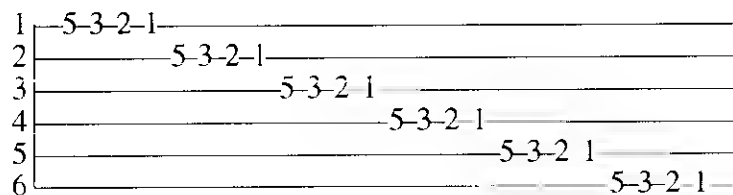
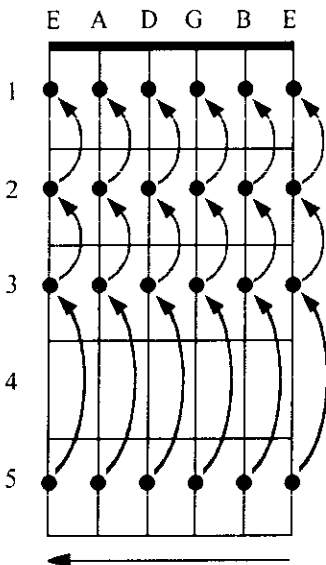
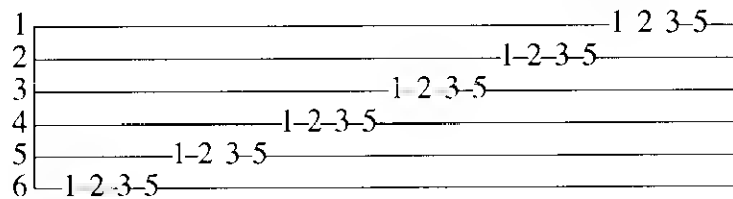
### **Hyper-Extended Fingering**

---

These finger combinations are a little unusual, but they work well for stretching and strengthening your left hand. Make sure you use the correct fingers for each note. If you have difficulty with these unusual stretches, try playing a little higher up on the fretboard.



#### **Exercise 4a**



To get the best results from this exercise, it is important to use the correct fingers. Because these exercises are so unusual, the finger numbers have been written under the tablature.

### ***Exercise 4b***

1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 4 3 2 1 4 3 2 1 4 3 2 1 4 3 2 1 4 3 2 1

### ***Exercise 4c***

1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 4 3 2 1 4 3 2 1 4 3 2 1 4 3 2 1 4 3 2 1 4 3 2 1

### ***Exercise 4d***

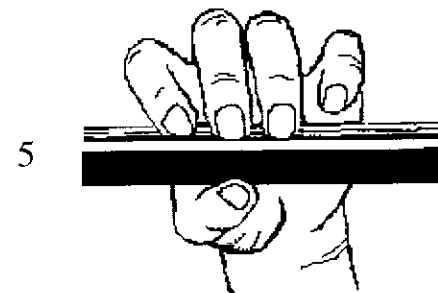
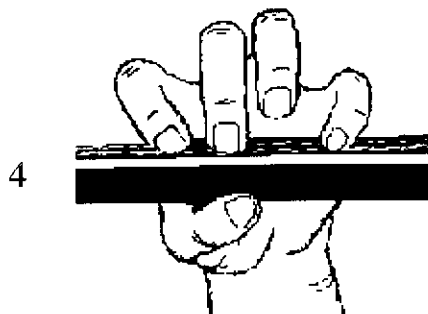
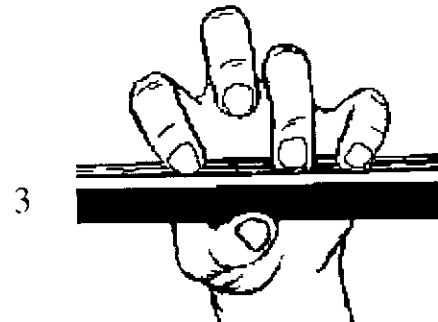
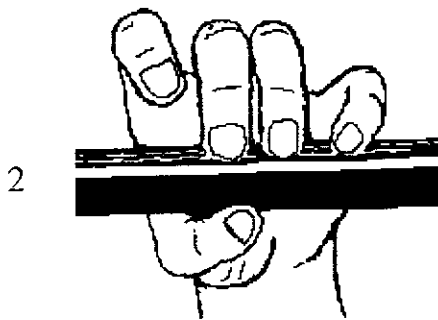
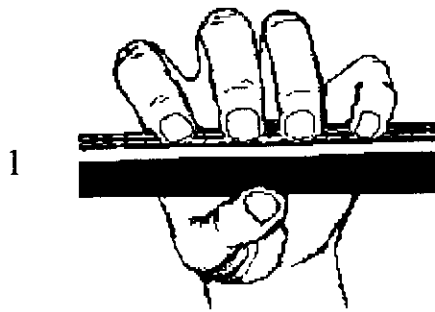
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 4 3 2 1 4 3 2 1 4 3 2 1 4 3 2 1 4 3 2 1 4 3 2 1

## ***Exercise #5***

### ***Lifting***

---

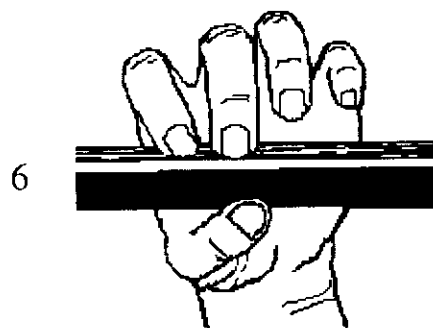
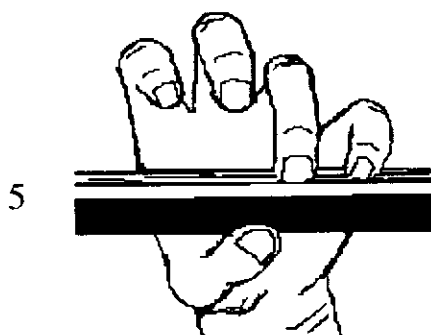
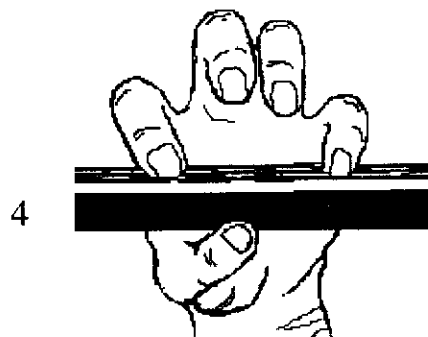
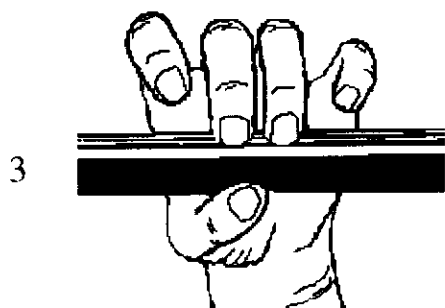
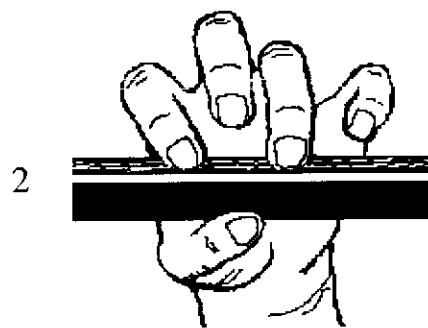
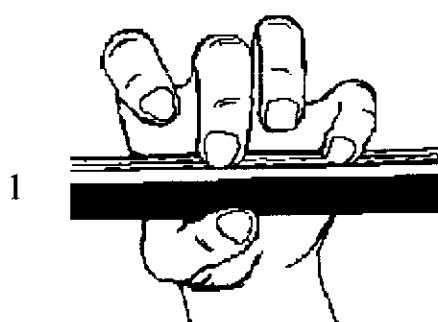
This is a great exercise for improving finger independence and strength. Begin by placing all four fingers on the sixth string. Each finger should be on a different fret as shown on figure 1. Now, lift each finger as shown on the other diagrams. You should repeat each finger lift many times before moving on to the next finger. This exercise is similar to the trills shown earlier, but remember to hold down the remaining three fingers this time.



## ***Exercise #6*** ***Lifting II***

---

Lift two fingers at a time on this exercise. You can perform this exercise by lifting all six finger combinations one after the other, or you can alternate between any two of them. This exercise was designed to improve finger independence. Start slowly and make sure you only lift the fingers indicated.



## ***Chapter 4***

# ***Advanced Fingering Exercises***

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Beginners shouldn't attempt the exercises in this chapter until they feel comfortable with the exercises shown earlier. Even advanced guitarists will find most of these exercises challenging. They will improve both picking and fingering ability.

Chapter 4 contains the following exercises:

Single String Combinations

Diagonal Fingering

Vertical Fingering

String Skipping

Pivoting

Three Grouping

Four Grouping

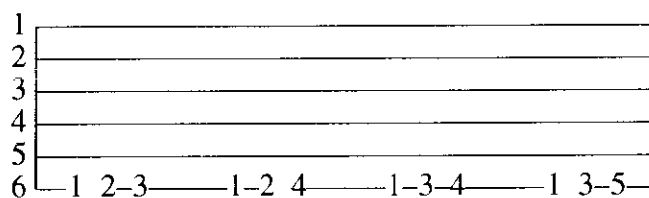
# **Exercise #1**

## **Single String Combinations**

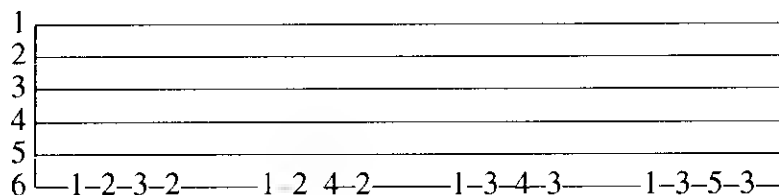
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Here are four fingering groups on a single string. Play slowly and evenly because this exercise requires accuracy before speed. Make sure that you do all four groups on all six strings.

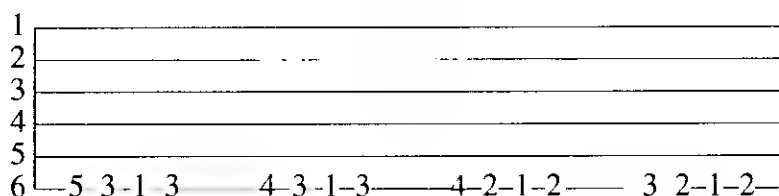
### **Exercise 1a**



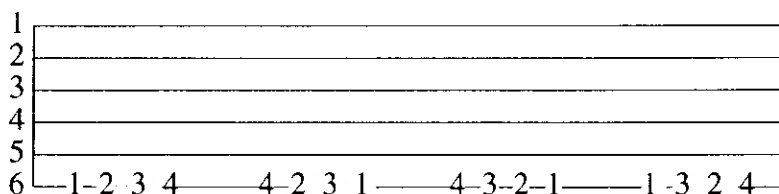
### **Exercise 1b**



### **Exercise 1c**



### **Exercise 1d**



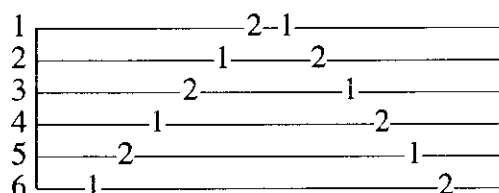
## **Exercise #2**

### **Diagonal Fingering**

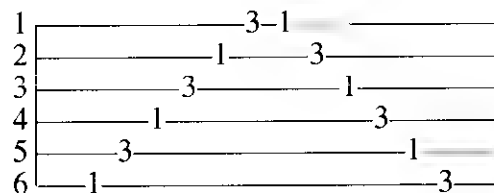
---

Diagonal fingering will improve your picking because of the quick movement from string to string. It will also help your left hand because the fingering is very challenging.

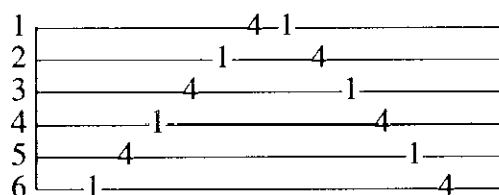
#### **Exercise 2a**



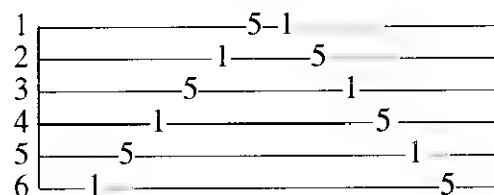
#### **Exercise 2b**



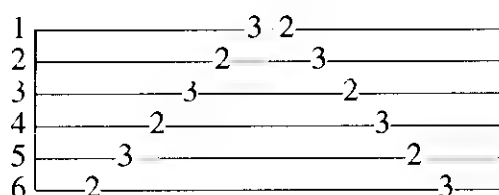
#### **Exercise 2c**



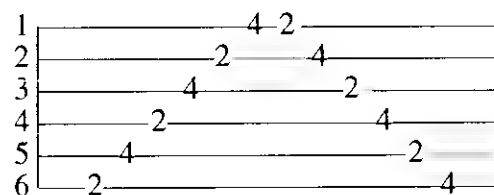
#### **Exercise 2d**



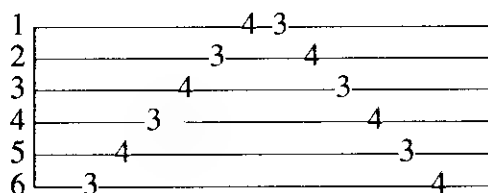
#### **Exercise 2e**



#### **Exercise 2f**



#### **Exercise 2g**





### Exercise 2h

A musical staff diagram consisting of six horizontal staves, numbered 1 through 6 from top to bottom. Each staff contains a series of numbers indicating fingerings or notes:

- Staff 1:** 4, 4
- Staff 2:** 4, 3, 4
- Staff 3:** 4, 3, 2, 2, 3, 4
- Staff 4:** 3, 2, 1, 1, 2, 3
- Staff 5:** 2, 1, 1, 2
- Staff 6:** 1, 1

### Exercise 2i

### Exercise 2j

A musical score for a six-part setting of 'The Rose Tree'. The score is written on six staves, numbered 1 to 6 from top to bottom. The melody is distributed among the parts, with some parts having more active lines than others. The notes are written in a simple, clear style, and the lyrics are written below the staves.

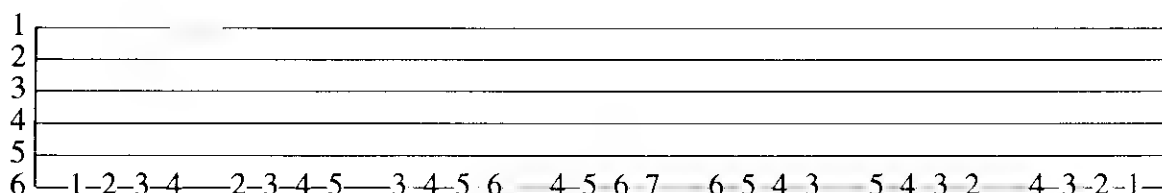
## ***Exercise #3***

### ***Vertical Fingering***

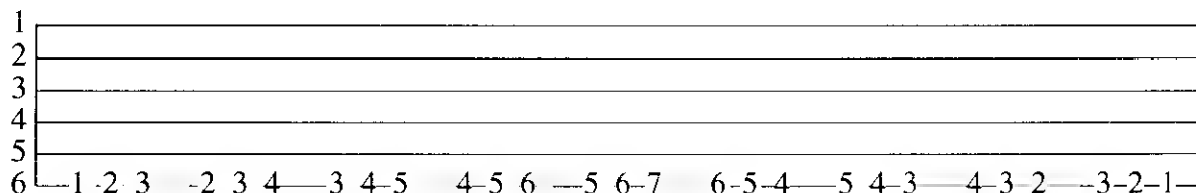
---

These exercises are played on one string at a time (vertically). Starting on the first fret, play a group of notes as shown on the tablature. Then move to the second fret and play the next group of notes. The tablature below shows a few frets, but you should continue this pattern up and down the entire fretboard on all six strings.

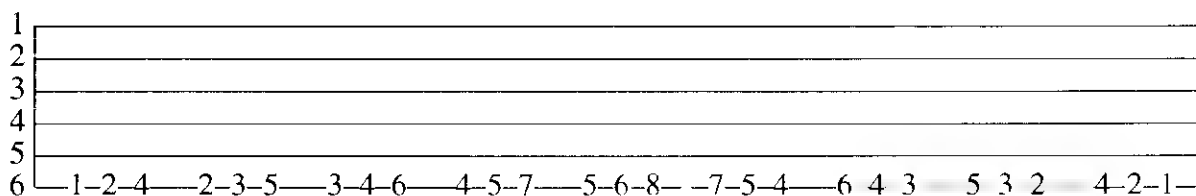
#### ***Exercise 3a***



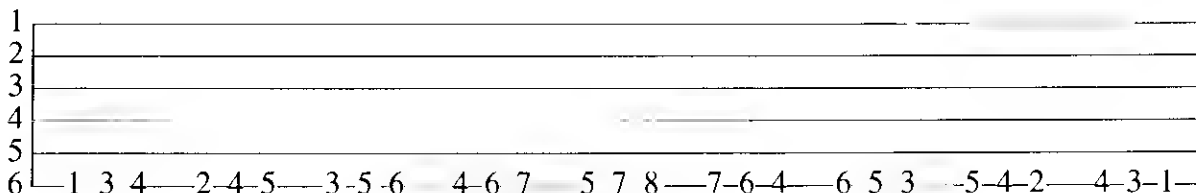
#### ***Exercise 3b***




#### ***Exercise 3c***



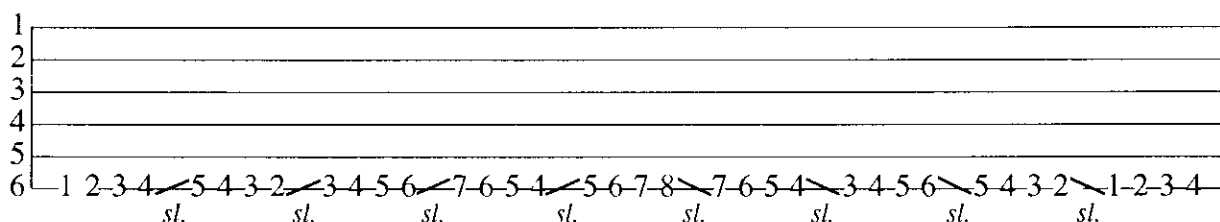
#### ***Exercise 3d***



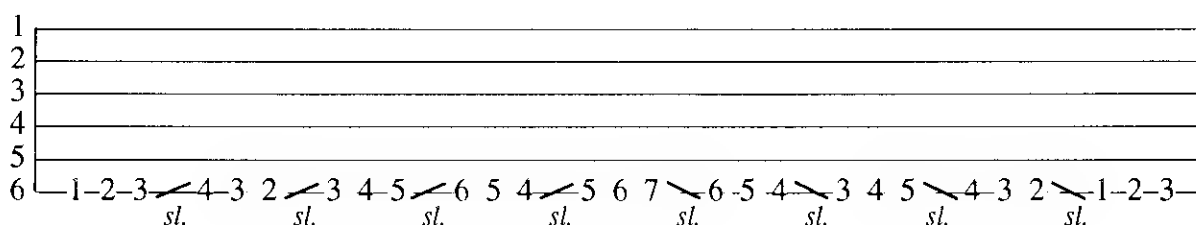
Here are four more vertical exercises. These have a slide between each group of notes. If you are unfamiliar with sliding, simply apply pressure and move to the next fret without lifting your finger. A slide is shown on the tablature by a  and the letters "sl."

Fingering is important here. On exercise 3e, play the first four notes, then slide to the fifth fret with your pinky. Now, play four notes backwards and slide with your index finger. Continue this all the way up and down the fretboard on all six strings.

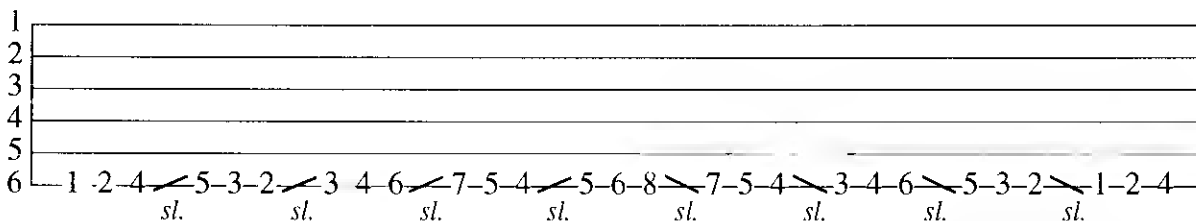
### Exercise 3e



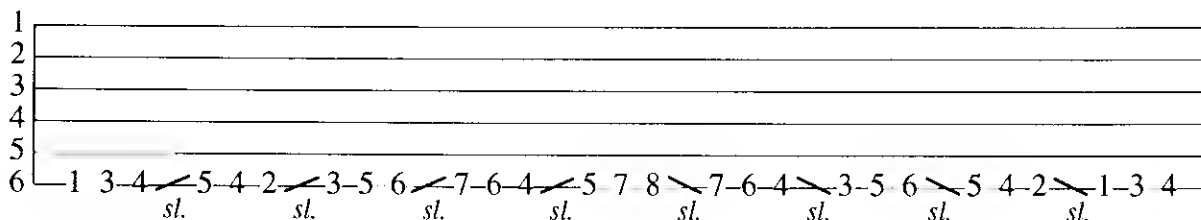
### Exercise 3f



### Exercise 3g



### Exercise 3h

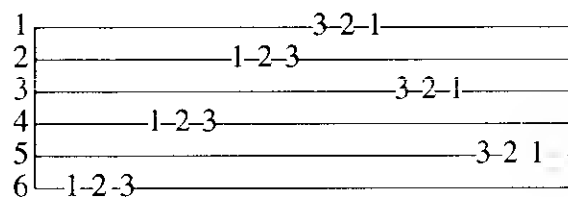


## **Exercise #4** **String Skipping**

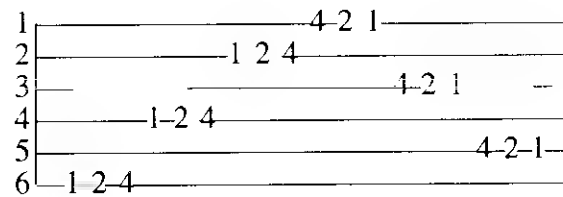
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String skipping is similar to the straight fingering exercises in chapter two. Play these the same way, but play every other string.

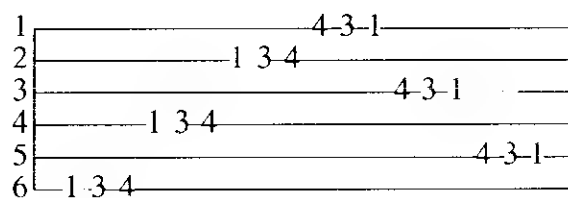
### **Exercise 4a**



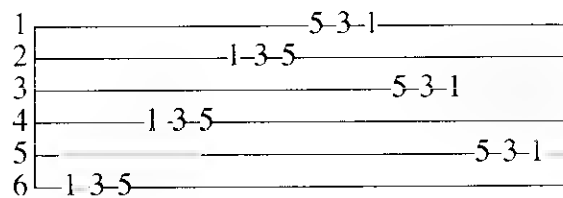
### **Exercise 4b**



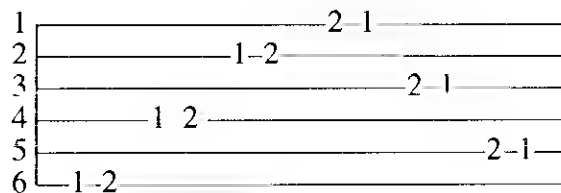
### **Exercise 4c**



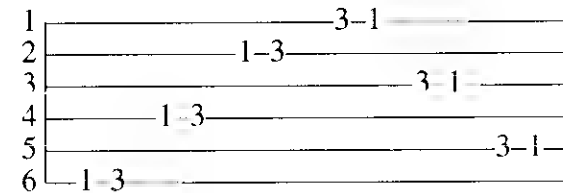
### **Exercise 4d**



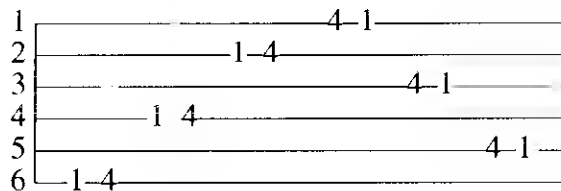
### **Exercise 4e**



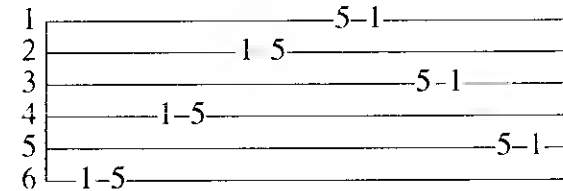
### **Exercise 4f**



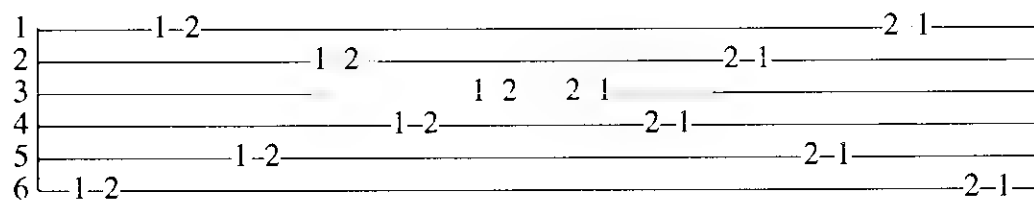
### **Exercise 4g**



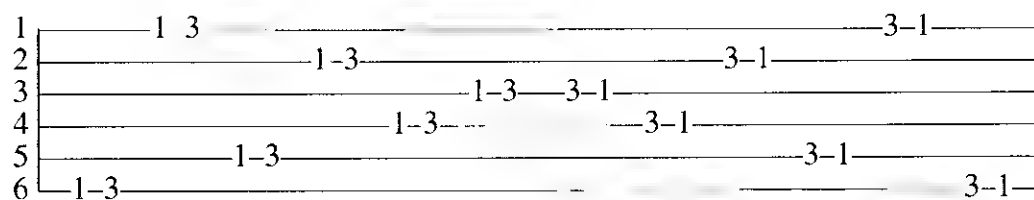
### **Exercise 4h**



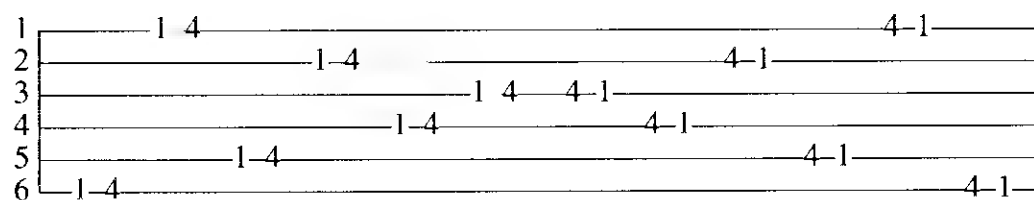
### ***Exercise 4i***



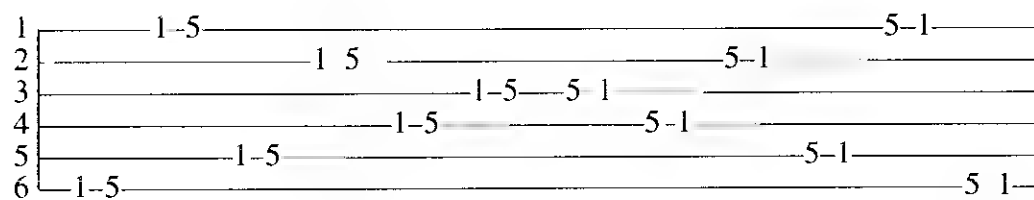
### ***Exercise 4j***



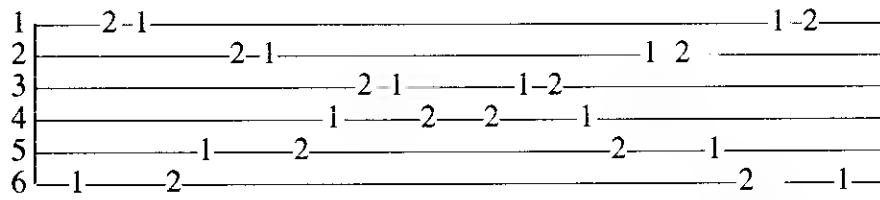
### ***Exercise 4k***



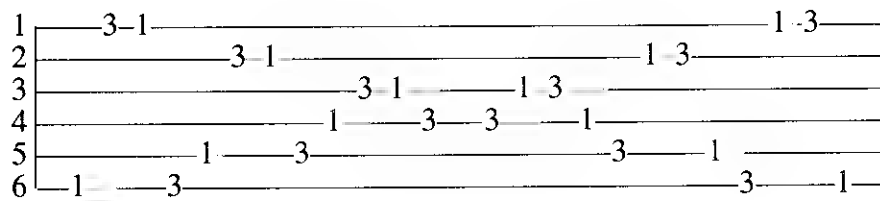
### ***Exercise 4l***



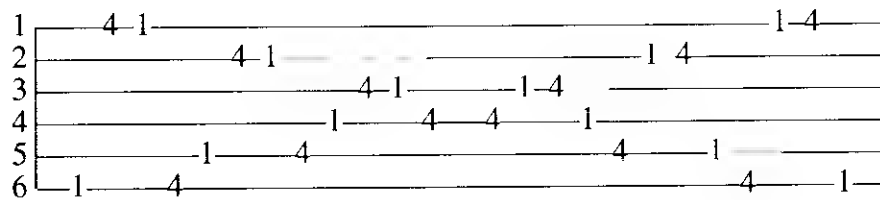
### Exercise 4m



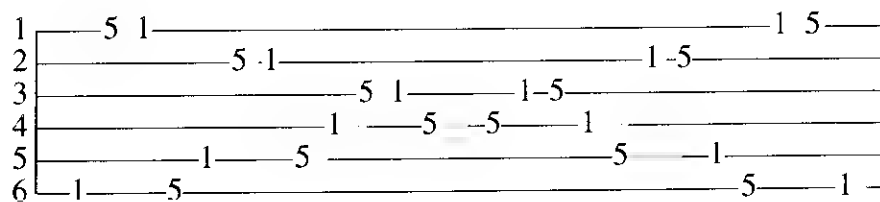
### Exercise 4n



### Exercise 4o



### Exercise 4p



## **Exercise #5**

### **Pivoting**

---

Exercise #5 is an advanced version of the repeated fingering exercise in chapter two. Notice that every other note is the same here. In other words, you will be *pivoting* from one note to the next.

### **Exercise 5a**

Exercise 5a consists of two systems of six staves each. The first system shows the following fingering patterns across the staves (from top to bottom):  
 Staff 1: 1-2-1-3 1-4  
 Staff 2: 1 2-1-3 1-4  
 Staff 3: 1-2-1 3-1-4  
 Staff 4: 1 2-1-3-1 4  
 Staff 5: 1 2-1-3 1-4  
 Staff 6: 1-2-1 3-1-4  
 The second system shows:  
 Staff 1: 1-2-1-3 1-4  
 Staff 2: 1 2 1-3-1-4  
 Staff 3: 1-2-1-3 1-4  
 Staff 4: 1 2 1-3-1 4  
 Staff 5: 1-2-1 3-1-4  
 Staff 6: 1-2-1 3-1-4

### **Exercise 5b**

Exercise 5b consists of two systems of six staves each. The first system shows the following fingering patterns across the staves (from top to bottom):  
 Staff 1: 4 3 4 2 4 1  
 Staff 2: 4 3-4-2-4 1  
 Staff 3: 4 3 4-2-4 1  
 Staff 4: 4 3 4 2 4-1  
 Staff 5: 4 3 4-2-4 1  
 Staff 6: 4-3-4-2-4-1  
 The second system shows:  
 Staff 1: 4-3 4-2-4-1  
 Staff 2: 4-3 4-2-4-1  
 Staff 3: 4-3-4-2-4-1  
 Staff 4: 4-3 4 2 4-1  
 Staff 5: 4-3-4-2-4 1  
 Staff 6: 4-3-4-2 4-1

### Exercise 5c

1-2-1-3-1-2-1-4

1-2-1-3-1-2-1-4

1-2-1-3-1 2 1 4

1-2-1-3-1-2 1 4

1-2-1-3-1-2-1-4

1-2-1-3-1-2-1 4

### Exercise 5d

### Exercise 5e

1  
2  
3  
4  
5  
6

2-4-2 1 2 4-2-3  
2-4-2-1 2 4-2 3  
2-4-2-1-2-4-2-3  
2 4-2 1 2 4-2 3  
2 4-2-1-2-4-2 3  
2-4-2-1-2-4-2-3

1 2 4-2 1 2 4-2-3  
 2 2 4-2-1-2 4-2 3  
 3 2-4-2-1-2-4-2-3  
 4 2-4-2-1-2-4-2-3  
 5 2-4-2 1 2 4-2 3  
 6 2 4-2-1-2-4-2-3



### Exercise 5f

1 2-3-2-1-2-3-2-4

2 2-3-2-1-2-3-2-4

3 2-3-2 1 2 3-2 4

4 2-3-2-1-2-3 2 4

5 2-3-2-1 2 3-2 4

6 2-3 2 1 2 3-2 4

### Exercise 5g

[illegible]

### Exercise 5h

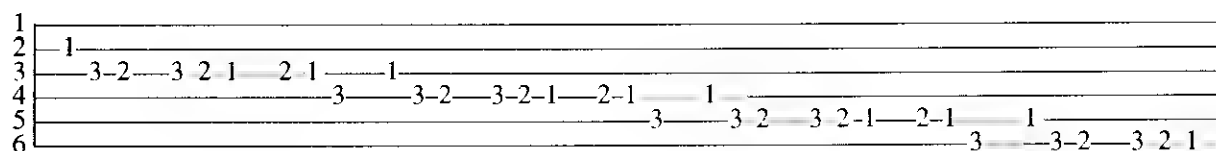
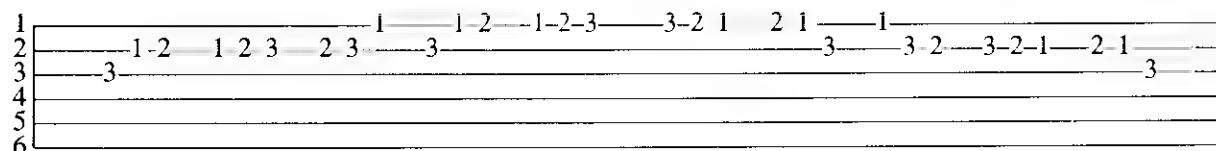
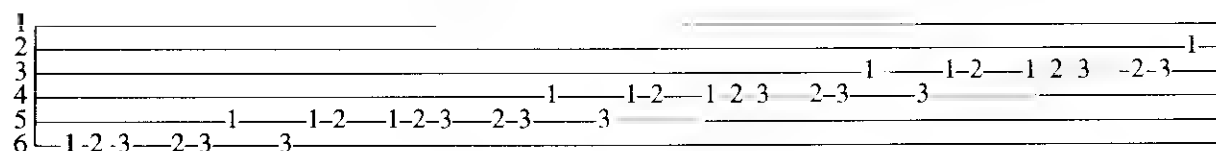
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## **Exercise #6**

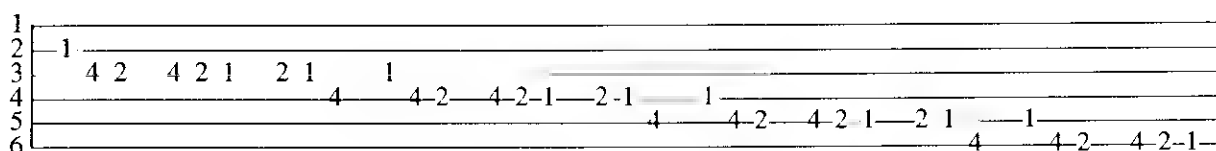
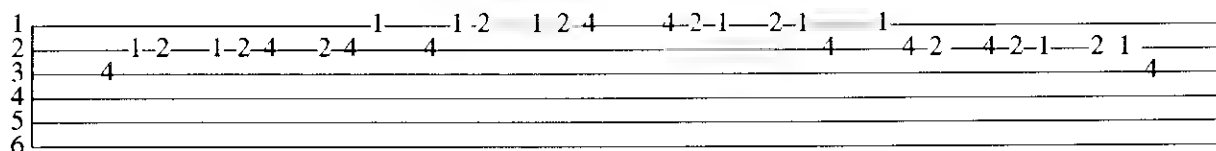
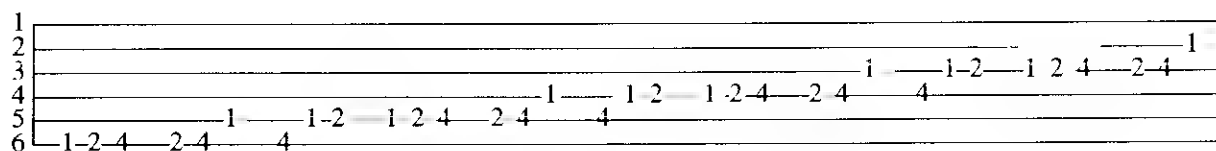
### **Three Grouping**

The notes on these exercises are divided into groups of three. On the first exercise you will be using the 1-2-3 combination. Instead of playing it straight across the strings, you will now be using a more complex pattern. Begin by playing three notes on the sixth string. Now play three more notes, but start on the second fret, then the third, etc. Continue this pattern throughout the entire exercise.

#### **Exercise 6a**



#### **Exercise 6b**



## Exercise 6c

1  
2  
3  
4  
5  
6

1  
2  
3  
4  
5  
6

1  
2  
3  
4  
5  
6

## Exercise 6d

1  
2  
3  
4  
5  
6

1  
2  
3  
4  
5  
6

1  
2  
3  
4  
5  
6

## **Exercise #7**

### **Four Grouping**

---

Four Grouping is very similar to the previous exercise except that the notes are divided into groups of four this time. All of the grouping exercises in this chapter will help you to get used to playing complex patterns.

#### **Exercise 7a**

Exercise 7a consists of three staves of musical notation, each with six lines (1-6). The notation is as follows:

- Staff 1:**
  - Line 1: 1
  - Line 2: 1-2-3-4
  - Line 3: 1-2-3-4
  - Line 4: 1-2-3-4
  - Line 5: 1-2-3-4
  - Line 6: 1-2-3-4
- Staff 2:**
  - Line 1: 1-2-3-4
  - Line 2: 1-2-3-4
  - Line 3: 1-2-3-4
  - Line 4: 1-2-3-4
  - Line 5: 1-2-3-4
  - Line 6: 1-2-3-4
- Staff 3:**
  - Line 1: 1-2-3-4
  - Line 2: 1-2-3-4
  - Line 3: 1-2-3-4
  - Line 4: 1-2-3-4
  - Line 5: 1-2-3-4
  - Line 6: 1-2-3-4

#### **Exercise 7b**

Exercise 7b consists of three staves of musical notation, each with six lines (1-6). The notation is as follows:

- Staff 1:**
  - Line 1: 1
  - Line 2: 1-2-3-4
  - Line 3: 1-2-3-4
  - Line 4: 1-2-3-4
  - Line 5: 1-2-3-4
  - Line 6: 1-2-3-4
- Staff 2:**
  - Line 1: 1-2-3-4
  - Line 2: 1-2-3-4
  - Line 3: 1-2-3-4
  - Line 4: 1-2-3-4
  - Line 5: 1-2-3-4
  - Line 6: 1-2-3-4
- Staff 3:**
  - Line 1: 1-2-3-4
  - Line 2: 1-2-3-4
  - Line 3: 1-2-3-4
  - Line 4: 1-2-3-4
  - Line 5: 1-2-3-4
  - Line 6: 1-2-3-4

## Exercise 7c

1  
2  
3  
4  
5  
6

1  
2  
3  
4  
5  
6

1  
2  
3  
4  
5  
6

## Exercise 7d

1  
2  
3  
4  
5  
6

1  
2  
3  
4  
5  
6

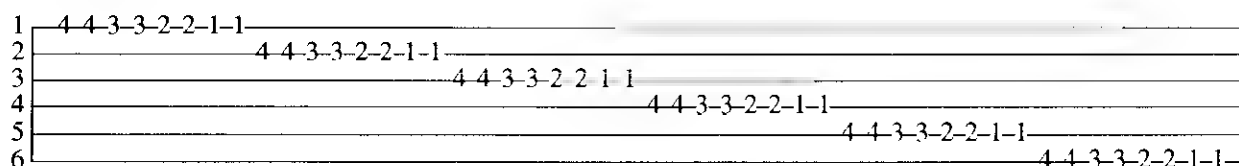
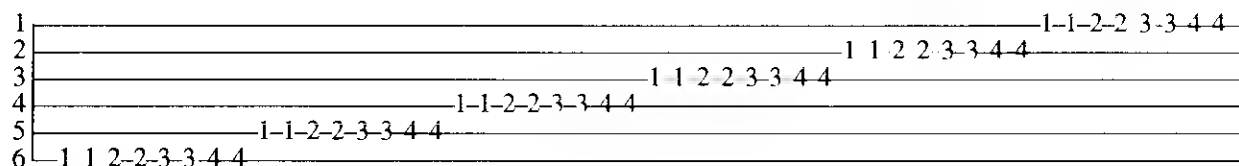
1  
2  
3  
4  
5  
6

## ***Additional Exercises***

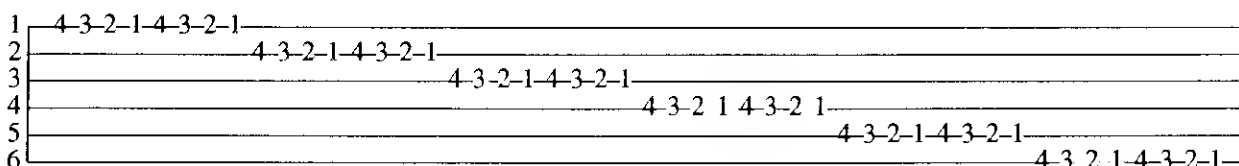
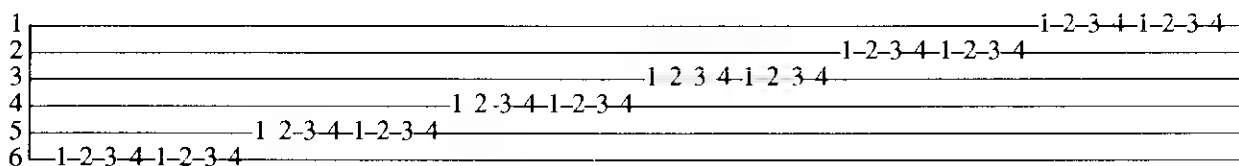
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If you want to take your workout one step further, here are two ways to modify the exercises that you've learned so far. Multi-picking, and multi-stringing can be used on most of the previous exercises. To multi-pick, simply play each note two, three, or four times. Multi-stringing means to play each string two, three, or four times. In these examples each note is picked twice (double-picking), or each string is played twice (double stringing).

### ***Straight Fingering, Double Picked***



### ***Straight Fingering, Double Stringed***



## ***String Skipping, Double Stringed***

1 3 2 1-3-2-1  
 2 1-2-3 1 2 3  
 3 3 2 1-3-2-1  
 4 1-2 3 1-2-3  
 5 3-2-1 3 2-1  
 6 1-2-3 1-2-3

## ***Diagonal Fingering, Double Picked***

1 4 4  
 2 3-3 4 4 3-3  
 3 4 4 3-3 2 2  
 4 3 3 2-2 1-1  
 5 2-2 1-1  
 6 1-1

1 4 4  
 2 3-3 4 4  
 3 2-2 3-3 4 4  
 4 1-1 2-2 3-3  
 5 1-1 2-2  
 6 1-1

## ***Rolling, Double Stringed***

1 H H H H H H H H  
 2 H H H H H H H H  
 3 1-3-4 1-3-4 1-3-4 1-3-4  
 4 1-3-4 1-3-4 1-3-4 1-3-4  
 5 1-3-4 1-3-4 1-3-4 1-3-4  
 6 1-3-4 1-3-4 1-3-4 1-3-4

1 P P P P P P P P  
 2 P P P P P P P P  
 3 4-3-1 4-3-1 4-3-1 4-3-1  
 4 4-3-1 4-3-1 4-3-1 4-3-1  
 5 4-3-1 4-3-1 4-3-1 4-3-1  
 6 4-3-1 4-3-1 4-3-1 4-3-1

***Part 2***  
***Playing In Key***



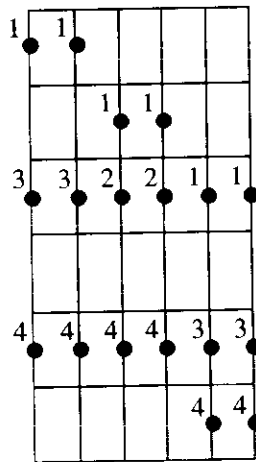


# Chapter 5

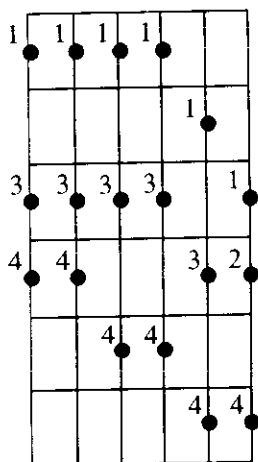
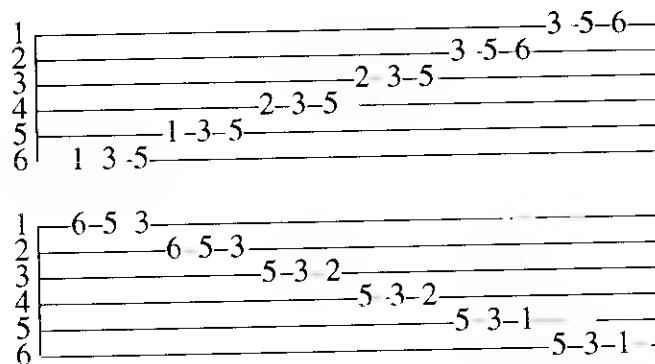
## The Major and Minor Scales

When a certain group of notes are put together in succession they form a scale. Each scale forms a different pattern on your fretboard. In this section you will learn how the fretboard works, and how the major and minor scales are related to each other.

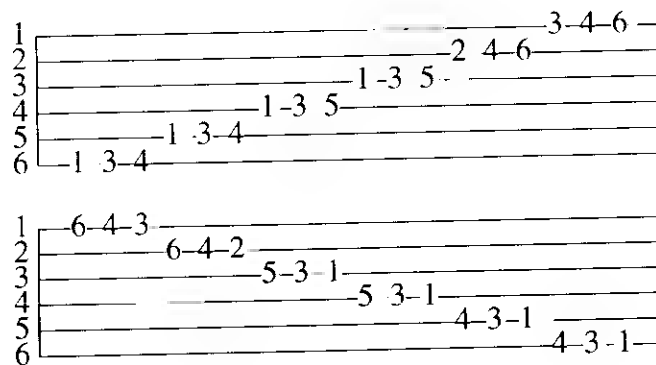
The exercises in this chapter are quite challenging. You should thoroughly practice the scales before you attempt them.



### Major



### Minor



**The Fretboard.** It is necessary to understand the notes on the guitar before you can learn how scales work. The notes appear alphabetically "A" through "G" as you go up each string. When you get to the twelfth fret, the notes start to repeat. Notice that the open string notes are the same as the notes on the twelfth fret.

You will be dealing with three different types of notes when learning scales. A note that appears by itself is called a natural note. The other notes will either be sharp (#) or flat (♭). You'll have to know when to use sharps and flats in order to form scales correctly. A note is sharp if it is one fret higher than the natural note. A note is flat if it is one fret lower. Here is an example. The note on the sixth string, third fret is a "G." If you raise the pitch of that note by one fret, what would you call it now? You have the choice of either "G#" or "A♭." The correct note would be "G#" because you raised the note not lowered it. If the note on the fifth fret, "A," is lowered by one fret, it would become an "A♭." This can be a little confusing at first, but don't worry, it will become clearer as you read through the chapter.

	E	A	D	G	B	E	
1	F	A#	D#	G#	C	F	13
		B♭	E♭	A♭			
2	F#	B	E	A	C#	F#	14
	G♭				D♭	G♭	
3	G	C	F	A#	D	G	15
			B♭				
4	G#	C#	F#	B	D#	G#	16
	A♭	D♭	G♭	E♭	A♭		
5	A	D	G	C	E	A	17
6	A#	D#	G#	C#	F	A#	18
	B♭	E♭	A♭	D♭	B♭		
7	B	E	A	D	F#	B	19
				G♭			
8	C	F	A#	D#	G	C	20
			B♭	E♭			
9	C#	F#	B	E	G#	C#	21
	D♭	G♭		A♭	D♭		
10	D	G	C	F	A	D	22
11	D#	G#	C#	F#	A#	D#	23
	E♭	A♭	D♭	G♭	B♭	E♭	
12	E	A	D	G	B	E	24

**Major scales.** Each scale is made up of eight notes, and every note is separated by a whole step or a half step. When you go from one fret to the next, it is called a half step. When you skip over a fret it is called a whole step. Take a look at the scale shown below.

### ***C Major***

C	D	E	F	G	A	B	C
	Whole Step	Whole Step	Half Step	Whole Step	Whole Step	Whole Step	Half Step

Notice the pattern here: Whole step, whole step, half step, whole step, whole step, whole step, half step. All of the major scales follow this pattern. Also, the first note of the scale names the scale, and the last note is always the same as the first. See if you can figure out what notes are in the G major and F major scales before you read the next page.

The G major and F major scales are shown below. For G major, begin by finding a “G” on the sixth string. Remember the pattern. Move up one whole step. This will bring you to the note “A.” Next, move up another whole step to the note “B.” To find the rest of the notes in the scale, just follow the whole and half step pattern up the sixth string until you get back to “G.”

Important note: Look at the F major scale. The fourth note is a “B $\flat$ .” Why couldn’t you call it an “A $\sharp$ ?” The reason is that the scale would have two A’s and no B’s. Each scale must contain all of the notes: A, B, C, D, E, F, and G. They can either be sharp, flat, or natural, but they all must be included. Keep this in mind when figuring out all of the scales.

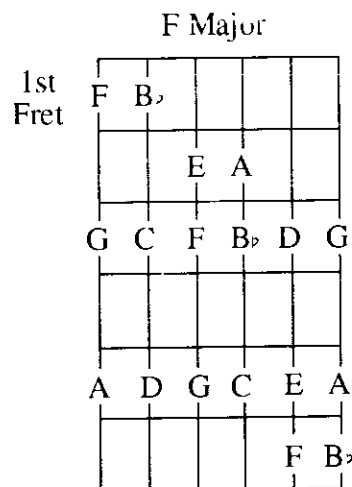
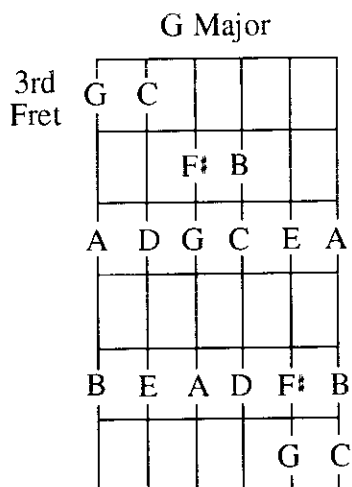
### ***G Major***

G	A	B	C	D	E	F $\sharp$	G
	Whole Step	Whole Step	Half Step	Whole Step	Whole Step	Whole Step	Half Step

### ***F Major***

F	G	A	B $\flat$	C	D	E	F
	Whole Step	Whole Step	Half Step	Whole Step	Whole Step	Whole Step	Half Step

Here’s another way to determine what notes are in a major scale. For G major, find a “G” on the sixth string. Now, play the major scale pattern from that point. Examine each note and you’ll see that they are exactly the same as shown above. The diagrams below show every note in the G and F major scales as they would appear on the fretboard.



**Relative Minor Scales.** For every major scale, there is a minor scale that contains the same notes. The example below looks similar to C major except that the starting note has changed. When changing the starting note, the whole and half steps also must change. Memorize this new pattern to figure out all minor scales: Whole step, half step, whole step, whole step, half step, whole step, whole step.

### ***A Minor***

A	B	C	D	E	F	G	A
	Whole Step	Half Step	Whole Step	Whole Step	Half Step	Whole Step	Whole Step

The two minor scales shown below contain the same notes as G major and F major.

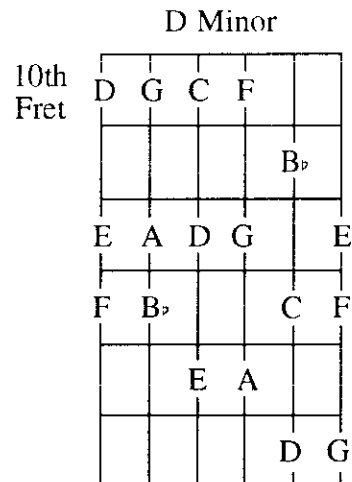
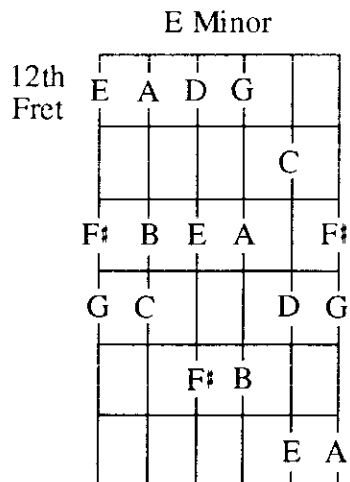
### ***E Minor***

E	F#	G	A	B	C	D	E
	Whole Step	Half Step	Whole Step	Whole Step	Half Step	Whole Step	Whole Step

### ***D Minor***

D	E	F	G	A	B $\flat$	C	D
	Whole Step	Half Step	Whole Step	Whole Step	Half Step	Whole Step	Whole Step

Here's another method of determining what notes are in a minor scale. Use the minor scale pattern just like you used the major pattern on the previous page. As you can see from the diagrams, the notes fit in perfectly with the pattern.



This handy reference sheet lists all of the major scales with their relative minors.

<p>C Major</p> <p>C D E F G A B C D E F G A</p> <p>A Minor</p>	
<p>G Major</p> <p>G A B C D E F G A B C D E</p> <p>E Minor</p>	<p>F Major</p> <p>F G A B C D E F G A B C D</p> <p>D Minor</p>
<p>D Major</p> <p>D E F G A B C D E F G A B</p> <p>B Minor</p>	<p>B<math>\flat</math> Major</p> <p>B<math>\flat</math> C D E F G A B C D E F G</p> <p>G Minor</p>
<p>A Major</p> <p>A B C<math>\sharp</math> D E F<math>\sharp</math> G A B C<math>\sharp</math> D E F<math>\sharp</math></p> <p>F<math>\sharp</math> Minor</p>	<p>E<math>\flat</math> Major</p> <p>E<math>\flat</math> F G A B C D E F G A B C</p> <p>C Minor</p>
<p>E Major</p> <p>E F G<math>\sharp</math> A B C<math>\sharp</math> D E F<math>\sharp</math> G A B C<math>\sharp</math></p> <p>C<math>\sharp</math> Minor</p>	<p>A<math>\flat</math> Major</p> <p>A<math>\flat</math> B<math>\flat</math> C D E F G A B<math>\flat</math> C D E F</p> <p>F Minor</p>
<p>B Major</p> <p>B C<math>\sharp</math> D<math>\sharp</math> E F<math>\sharp</math> G<math>\sharp</math> A<math>\sharp</math> B C<math>\sharp</math> D<math>\sharp</math> E F<math>\sharp</math> G<math>\sharp</math></p> <p>G<math>\sharp</math> Minor</p>	<p>D<math>\flat</math> Major</p> <p>D<math>\flat</math> E<math>\flat</math> F G A B<math>\flat</math> C D<math>\flat</math> E<math>\flat</math> F G A<math>\flat</math> B<math>\flat</math></p> <p>B<math>\flat</math> Minor</p>
<p>F<math>\sharp</math> Major</p> <p>F<math>\sharp</math> G<math>\sharp</math> A<math>\sharp</math> B C<math>\sharp</math> D<math>\sharp</math> E<math>\sharp</math> F<math>\sharp</math> G<math>\sharp</math> A<math>\sharp</math> B C<math>\sharp</math> D<math>\sharp</math></p> <p>D<math>\sharp</math> Minor</p>	<p>G<math>\flat</math> Major</p> <p>G<math>\flat</math> A<math>\flat</math> B<math>\flat</math> C<math>\flat</math> D<math>\flat</math> E<math>\flat</math> F G<math>\flat</math> A<math>\flat</math> B<math>\flat</math> C<math>\flat</math> D<math>\flat</math> E<math>\flat</math></p> <p>E<math>\flat</math> Minor</p>
<p>C<math>\sharp</math> Major</p> <p>C<math>\sharp</math> D<math>\sharp</math> E<math>\sharp</math> F<math>\sharp</math> G<math>\sharp</math> A<math>\sharp</math> B<math>\sharp</math> C<math>\sharp</math> D<math>\sharp</math> E<math>\sharp</math> F<math>\sharp</math> G<math>\sharp</math> A<math>\sharp</math></p> <p>A<math>\sharp</math> Minor</p>	<p>C<math>\flat</math> Major</p> <p>C<math>\flat</math> D<math>\flat</math> E<math>\flat</math> F<math>\flat</math> G<math>\flat</math> A<math>\flat</math> B<math>\flat</math> C<math>\flat</math> D<math>\flat</math> E<math>\flat</math> F<math>\flat</math> G<math>\flat</math> A<math>\flat</math></p> <p>A<math>\flat</math> Minor</p>

# Major Scale Exercises

The first three major scale exercises are a little different from the rest. On the first two, you will play the notes in a different order than they would normally be played. On the third exercise, you will use the rolling technique to play the major scale.

Note: When you come to a repeat sign on any of these exercises, the number of times you repeat is up to you.

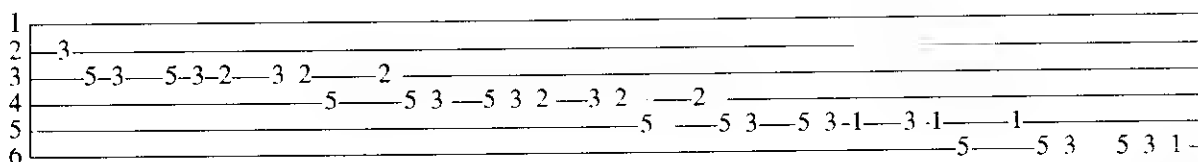
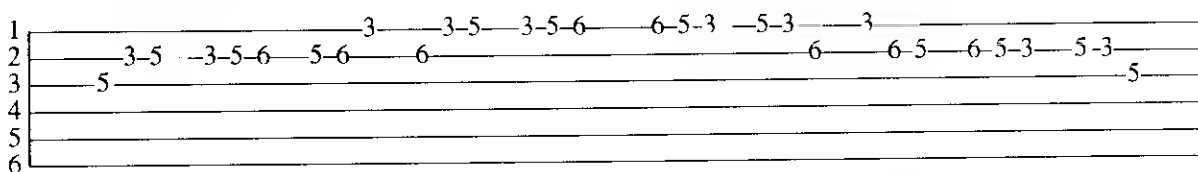
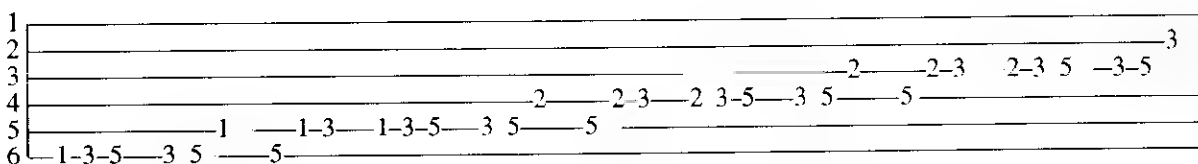
## Major Exercise #1

## Major Exercise #2

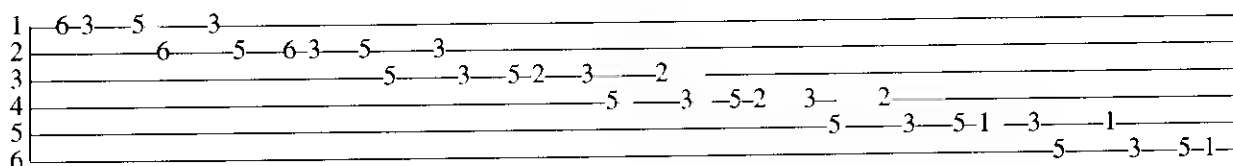
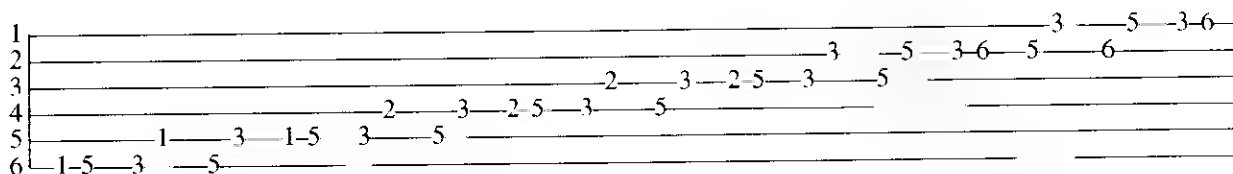
## Major Exercise #3

The remaining seven exercises each contain some sort of pattern. We will use exercise number four as an example. Begin this exercise by playing the first three notes of the major scale. The next step would be to play three more notes, but this time start with the second note of the scale, then the third, then the fourth, etc. Continue this pattern until you get to the first string, then play the entire exercise backwards.

### Major Exercise #4



### Major Exercise #5





## Major Exercise #6

System 1:

- Staff 1: 1 3-5 3-2 2-3-5 3-2 5-3
- Staff 2: 1 3-5 3-2 2-3-5 3-2 5-3
- Staff 3: 1 3-5 3-2 2-3-5 3-2 5-3
- Staff 4: 1 3-5 3-2 2-3-5 3-2 5-3
- Staff 5: 1 3-5 3-2 2-3-5 3-2 5-3
- Staff 6: 1 3-5 3-2 2-3-5 3-2 5-3

System 2:

- Staff 1: 3-5 6-5-3 3-5 6 6-5 6-5-3 3 5
- Staff 2: 2-3-5 5-3 3-5 6 6-5 6-5-3 5-3 2-3-5
- Staff 3: 2-3-5 5-3 3-5 6 6-5 6-5-3 5-3 2-3-5
- Staff 4: 2-3-5 5-3 3-5 6 6-5 6-5-3 5-3 2-3-5
- Staff 5: 2-3-5 5-3 3-5 6 6-5 6-5-3 5-3 2-3-5
- Staff 6: 2-3-5 5-3 3-5 6 6-5 6-5-3 5-3 2-3-5

System 3:

- Staff 1: 5-3-2 2-3 5 3-2 2 3 5-3-1 1-3
- Staff 2: 5 3-2-3 5 5 3-2 5-3-1-3 5 5-3-1 3-5
- Staff 3: 5 3-2-3 5 5 3-2 5-3-1-3 5 5-3-1 3-5
- Staff 4: 5 3-2-3 5 5 3-2 5-3-1-3 5 5-3-1 3-5
- Staff 5: 5 3-2-3 5 5 3-2 5-3-1-3 5 5-3-1 3-5
- Staff 6: 5 3-2-3 5 5 3-2 5-3-1-3 5 5-3-1 3-5

## Major Exercise #7

System 1:

- Staff 1: 1 3-5 3-5 5 2 2-3 2-3-5 2-3-5 3-5 5
- Staff 2: 1 3-5 3-5 5 2 2-3 2-3-5 2-3-5 3-5 5
- Staff 3: 1 3-5 3-5 5 2 2-3 2-3-5 2-3-5 3-5 5
- Staff 4: 1 3-5 3-5 5 2 2-3 2-3-5 2-3-5 3-5 5
- Staff 5: 1 3-5 3-5 5 2 2-3 2-3-5 2-3-5 3-5 5
- Staff 6: 1 3-5 3-5 5 2 2-3 2-3-5 2-3-5 3-5 5

System 2:

- Staff 1: 3-5 3-5-6 3-5-6 5-6 6 6-5-3 5-3 3
- Staff 2: 3-5 3-5-6 3-5-6 5-6 6 6-5-3 5-3 3
- Staff 3: 3-5 3-5-6 3-5-6 5-6 6 6-5-3 5-3 3
- Staff 4: 3-5 3-5-6 3-5-6 5-6 6 6-5-3 5-3 3
- Staff 5: 3-5 3-5-6 3-5-6 5-6 6 6-5-3 5-3 3
- Staff 6: 3-5 3-5-6 3-5-6 5-6 6 6-5-3 5-3 3

System 3:

- Staff 1: 3 5-3-2 5-3-2 3-2 2 5 5-3 5-3-2 5-3-2 3-2 2
- Staff 2: 3 5-3-2 5-3-2 3-2 2 5 5-3 5-3-2 5-3-2 3-2 2
- Staff 3: 3 5-3-2 5-3-2 3-2 2 5 5-3 5-3-2 5-3-2 3-2 2
- Staff 4: 3 5-3-2 5-3-2 3-2 2 5 5-3 5-3-2 5-3-2 3-2 2
- Staff 5: 3 5-3-2 5-3-2 3-2 2 5 5-3 5-3-2 5-3-2 3-2 2
- Staff 6: 3 5-3-2 5-3-2 3-2 2 5 5-3 5-3-2 5-3-2 3-2 2

## Major Exercise #8

Major Exercise #8 consists of four systems of six-line staves. Each system contains six lines of music, with fingerings and slurs indicated. The notation is as follows:

- System 1:**
  - Line 1: 1-3-5-3-1
  - Line 2: 1-3-5
  - Line 3: 2-3-5-3-1
  - Line 4: 2-3-5
  - Line 5: 2-3-2
  - Line 6: 2-3-5-3-2
- System 2:**
  - Line 1: 2-3-5-3-2
  - Line 2: 2-3-5
  - Line 3: 2-3-5
  - Line 4: 2-3-5
  - Line 5: 2-3-5
  - Line 6: 2-3-5-3-2
- System 3:**
  - Line 1: 2-3-5-3-2
  - Line 2: 2-3-5
  - Line 3: 2-3-5
  - Line 4: 2-3-5
  - Line 5: 2-3-5
  - Line 6: 2-3-5-3-2
- System 4:**
  - Line 1: 2-3-5-3-2
  - Line 2: 2-3-5
  - Line 3: 2-3-5
  - Line 4: 2-3-5
  - Line 5: 2-3-5
  - Line 6: 2-3-5-3-2

## Major Exercise #9

Major Exercise #9 consists of two systems of six-line staves. Each system contains six lines of music, with fingerings and slurs indicated. The notation is as follows:

- System 1:**
  - Line 1: 3-5-6-5-3
  - Line 2: 3-5-6
  - Line 3: 2-3-5-3-2
  - Line 4: 2-3-5
  - Line 5: 1-3-5
  - Line 6: 1-3-5
- System 2:**
  - Line 1: 6-5-3
  - Line 2: 6-5-3
  - Line 3: 5-3-2-3-5
  - Line 4: 5-3-2
  - Line 5: 5-3-1
  - Line 6: 5-3-1

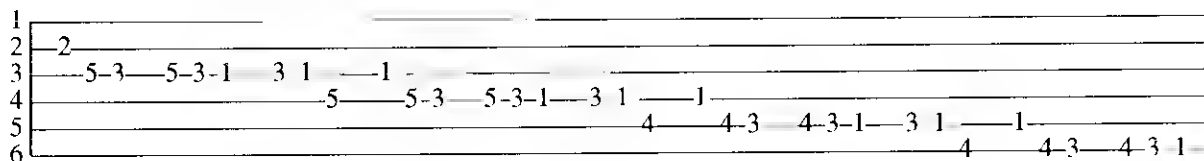
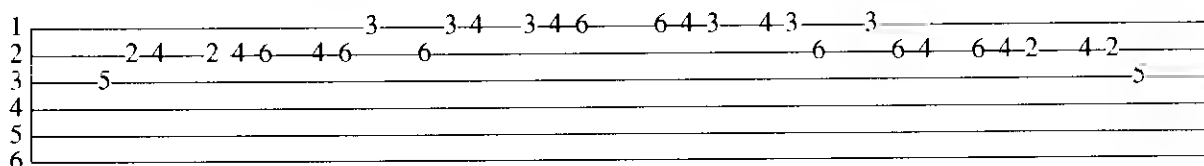
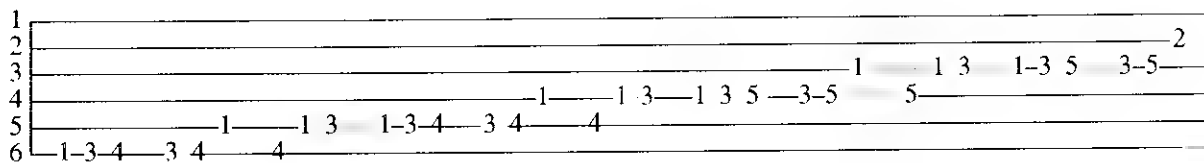
## Major Exercise #10

The exercise consists of nine staves, each containing two groups of exercises separated by a double bar line. The exercises are as follows:

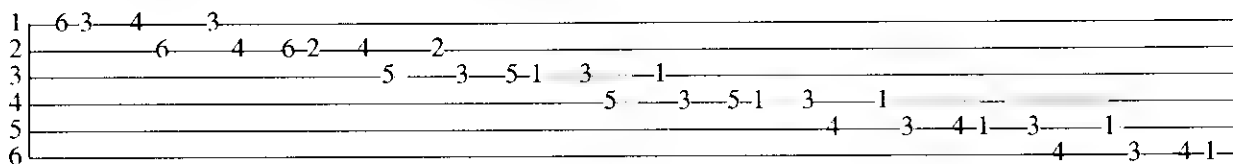
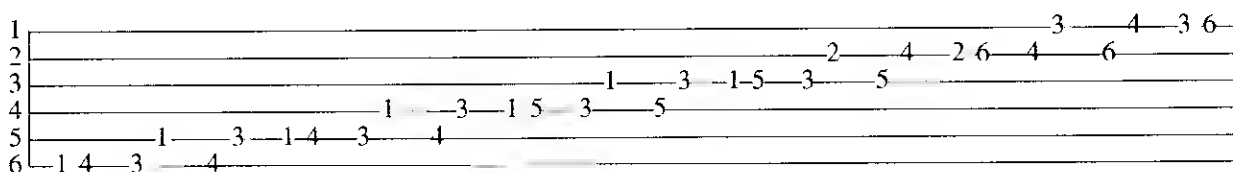
- Staff 1:**
  - Exercise 1: 1 3-5-3 | 1 3-5-5-3 | 1-3-5-5-3 | 1 3-5-3-1 | 1 3-5-3-1 | 5-3 | 1 3-5-3-1 | 1 3-5-3-1 | 5-3-1 | 5-3
  - Exercise 2: 2-3-2 | 1 3-5-5-3-1 | 5-3 | 1 3-5-3-1 | 5-3
- Staff 2:**
  - Exercise 3: 2-3-5-5-3-2 | 5-3-1 | 5-3 | 1 3-5-3-1 | 5-3
  - Exercise 4: 2-3-5-5-3-2 | 5-3-1 | 5-3
- Staff 3:**
  - Exercise 5: 2-3-5-5-3-2 | 5-3-1 | 5-3 | 1 3-5-3-1 | 5-3
  - Exercise 6: 2-3-5-5-3-2 | 5-3-1 | 5-3
- Staff 4:**
  - Exercise 7: 2-3-5-5-3-2 | 5-3-1 | 5-3 | 1 3-5-3-1 | 5-3
  - Exercise 8: 2-3-5-5-3-2 | 5-3-1 | 5-3
- Staff 5:**
  - Exercise 9: 2-3-5-5-3-2 | 5-3-1 | 5-3 | 1 3-5-3-1 | 5-3
  - Exercise 10: 2-3-5-5-3-2 | 5-3-1 | 5-3
- Staff 6:**
  - Exercise 11: 2-3-5-5-3-2 | 5-3-1 | 5-3 | 1 3-5-3-1 | 5-3
  - Exercise 12: 2-3-5-5-3-2 | 5-3-1 | 5-3
- Staff 7:**
  - Exercise 13: 2-3-5-5-3-2 | 5-3-1 | 5-3 | 1 3-5-3-1 | 5-3
  - Exercise 14: 2-3-5-5-3-2 | 5-3-1 | 5-3
- Staff 8:**
  - Exercise 15: 2-3-5-5-3-2 | 5-3-1 | 5-3 | 1 3-5-3-1 | 5-3
  - Exercise 16: 2-3-5-5-3-2 | 5-3-1 | 5-3
- Staff 9:**
  - Exercise 17: 2-3-5-5-3-2 | 5-3-1 | 5-3 | 1 3-5-3-1 | 5-3
  - Exercise 18: 2-3-5-5-3-2 | 5-3-1 | 5-3

[illegible]

### Minor Exercise #4



### Minor Exercise #5



## Minor Exercise #6

Three staves of musical notation for Minor Exercise #6. Each staff has a six-line staff with fingerings (1-6) indicated on the left. The notation includes various fingerings and slurs across the staves.

Staff 1: 1-3 4 4 3 1 1-3 4 4 3 1-3 5 3-1 1-3 5 5-3

Staff 2: 2-4 6 4-2 5 3 2 4 6 3 4 6 4 3 6 4 6 4 2 5 3 1-3 5 2-4

Staff 3: 5-3-1 1-3 5-3-1-3 5 5 3 1 4-3-1-3 4 4-3-1 1 3 4-3-1-3-4

## Minor Exercise #7

Three staves of musical notation for Minor Exercise #7. Each staff has a six-line staff with fingerings (1-6) indicated on the left. The notation includes various fingerings and slurs across the staves.

Staff 1: 1-3 4 3 4 1-3 4 3 4 1-3 4 3 4 1-3 5 1-3 5 3-5 5 1-3 1-3 5 1 3 5 2

Staff 2: 2 4 2 4 6 2 4 6 3 3 4 3 4 6 6 4 3 4 3 3 6 4 6 4 2 6 4 2 4 2 5 5 3

Staff 3: 5-3-1 5-3-1 3-1 1 5 5-3 5-3-1 5-3-1 3-1 1 4 4-3 4-3-1 4-3-1 3-1 1 4 4-3 4-3-1

### **Minor Exercise #8**

The image displays four staves of musical notation, each containing a sequence of notes and fingerings for guitar. The notation is written on a six-line staff with a key signature of one sharp (F#) and a common time signature (C). The notes are primarily on the first four lines of the staff, with some notes on the fifth line. Fingerings are indicated by numbers 1-5 above the notes. Bar lines are used to divide the staves into measures. The exercises are as follows:

- Staff 1:** A sequence of notes starting on the first line (F#), moving up and down the staff. Fingerings include 1, 2, 3, 4, 5, and 6. The sequence is: 1-3 4 4 3 1, 1-3 4 4 3 1, 1-3 4 4 3 1, 1-3 4 4 3 1, 1-3 4 4 3 1, 1-3 4 4 3 1.
- Staff 2:** A sequence of notes starting on the first line (F#), moving up and down the staff. Fingerings include 1, 2, 3, 4, 5, and 6. The sequence is: 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1.
- Staff 3:** A sequence of notes starting on the first line (F#), moving up and down the staff. Fingerings include 1, 2, 3, 4, 5, and 6. The sequence is: 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1.
- Staff 4:** A sequence of notes starting on the first line (F#), moving up and down the staff. Fingerings include 1, 2, 3, 4, 5, and 6. The sequence is: 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1, 1-3 5 5 3 1.

### **Minor Exercise #9**

1				3 4 6 4 3	
2			2 4 6 4 2	2 4 6	6 4 2
3		1 3 5 3 1	1 3 5	5 3 1	1 3 5
4	1 3 5 3 1	1 3 5	5 3 1	1 3 5	
5	1 3 4	4 3 1	1 3 4		
6	1 3 4				

1	6 4 3				
2	6 4 2	2 4 6	6 4 2		
3	5 3 1 3 5	5 3 1	1 3 5	5 3 1	
4		5 3 1 3 5	5 3 1	1 3 5	5 3 1
5			4 3 1 3 4	4 3 1	1 3 4
6				4 3 1 3 4	

## Minor Exercise #10

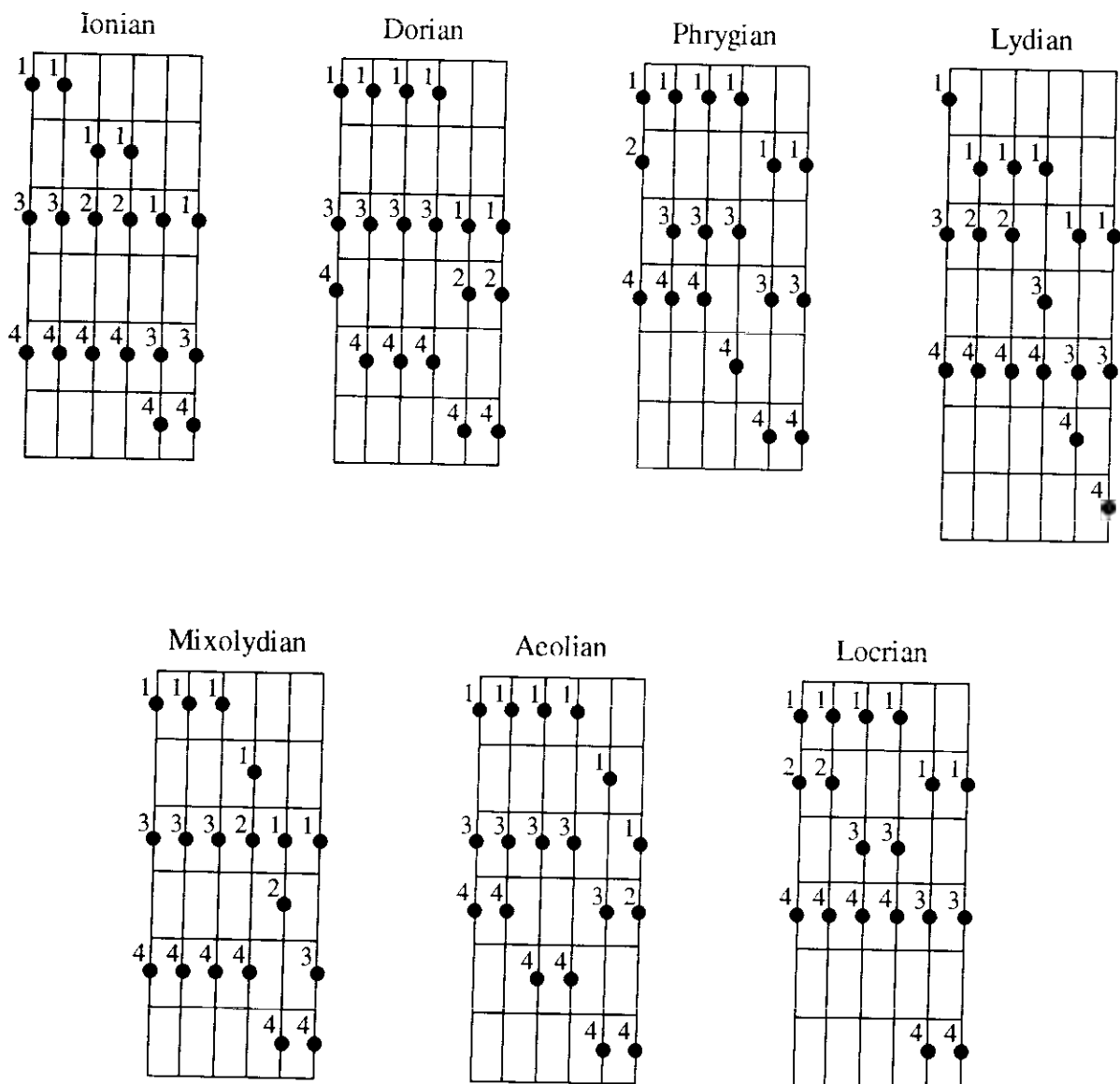
The musical score for 'Minor Exercise #10' is composed of nine staves, each with six lines numbered 1 to 6. The notation includes various musical symbols such as dots, vertical bar lines, and horizontal lines. Fingerings are indicated by numbers 1, 2, 3, 4, 5, and 6. The exercise is divided into sections by double bar lines. The first section (staves 1-3) features a series of chords and single notes. The second section (staves 4-6) introduces more complex patterns with triplets and sixteenth notes. The third section (staves 7-9) continues with intricate fingerings and patterns, including a final triplet pattern on the last staff.





## Chapter 6 Modes

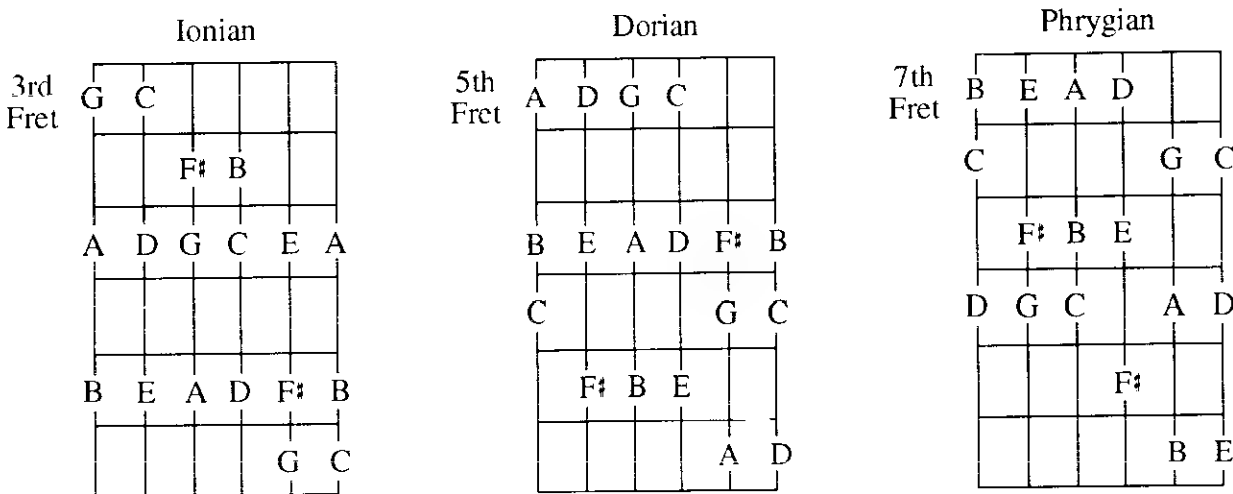
It's necessary to memorize the seven patterns shown here before you can learn how to play in key. The Ionian and Aeolian modes are the same as the major and minor scales, so you really only have five new patterns to learn. After we explain how modes work, you will learn several exercises that will help you move freely around the entire fretboard. This will help you create a constant flowing sound in your music.



**Understanding The Modes.** A mode is a different form of the major scale. Any of the notes in a major scale can be used as a starting point for a new scale. This chart lists the notes in each mode for the key of G major.

Ionian	G A B C D E F# G
Dorian	A B C D E F# G A
Phrygian	B C D E F# G A B
Lydian	C D E F# G A B C
Mixolydian	D E F# G A B C D
Aeolian	E F# G A B C D E
Locrian	F# G A B C D E F#

As you already know, the Ionian mode is the same as the major scale. G Ionian is shown on the fretboard on the left. The middle diagram shows the Dorian mode in the key of G major. Notice that the notes in this mode are the same as those in the G major scale, the only difference is that the Dorian mode begins on the note "A." Phrygian is also similar to the G major scale, but it begins on the note "B."



If each mode were played in the proper location, you could play in key all the way up the guitar neck. The chart below shows the G major scale, the starting note for each mode, and the fret where each mode should begin.

Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian	Ionian
3rd fret	5th fret	7th fret	8th fret	10th fret	12th fret	14th fret	15th fret
G	A	B	C	D	E	F#	G
	Whole Step	Whole Step	Half Step	Whole Step	Whole Step	Whole Step	Half Step

At this point, you should practice playing the modes up and down the fretboard in the key of G major. It's a good idea to stick with the same key until you are completely comfortable with the modes. Move on to other keys later.

Since the E minor scale is relative to G major, the modes will be played in the same positions on the guitar. As you can see on the chart below, the Aeolian mode is listed first this time because this is a minor scale.

### ***E Minor***

Aeolian open pos.	Locrian 2nd fret	Ionian 3rd fret	Dorian 5th fret	Phrygian 7th fret	Lydian 8th fret	Mixolydian 10th fret	Aeolian 12th fret
E	F $\sharp$	G	A	B	C	D	E
Whole Step	Half Step	Whole Step	Whole Step	Half Step	Whole Step	Whole Step	

Although the exercises in this chapter are made up of notes from the E minor scale, it is important to learn how modes work with other scales as well. Here are some examples

### ***F Major***

Ionian 1st fret	Dorian 3rd fret	Phrygian 5th fret	Lydian 6th fret	Mixolydian 8th fret	Aeolian 10th fret	Locrian 12th fret	Ionian 13th fret
F	G	A	B $\flat$	C	D	E	F
Whole Step	Whole Step	Half Step	Whole Step	Whole Step	Whole Step	Half Step	

### ***D Minor***

Aeolian 10th fret	Locrian 12th fret	Ionian 1st fret	Dorian 3rd fret	Phrygian 5th fret	Lydian 6th fret	Mixolydian 8th fret	Aeolian 10th fret
D	E	F	G	A	B $\flat$	C	D
Whole Step	Half Step	Whole Step	Whole Step	Half Step	Whole Step	Whole Step	

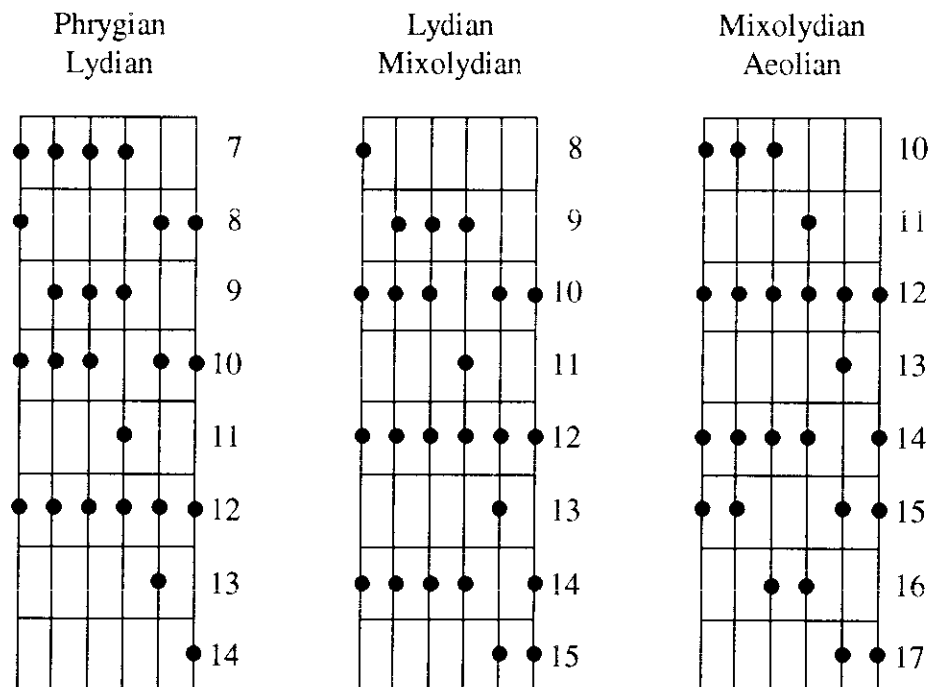
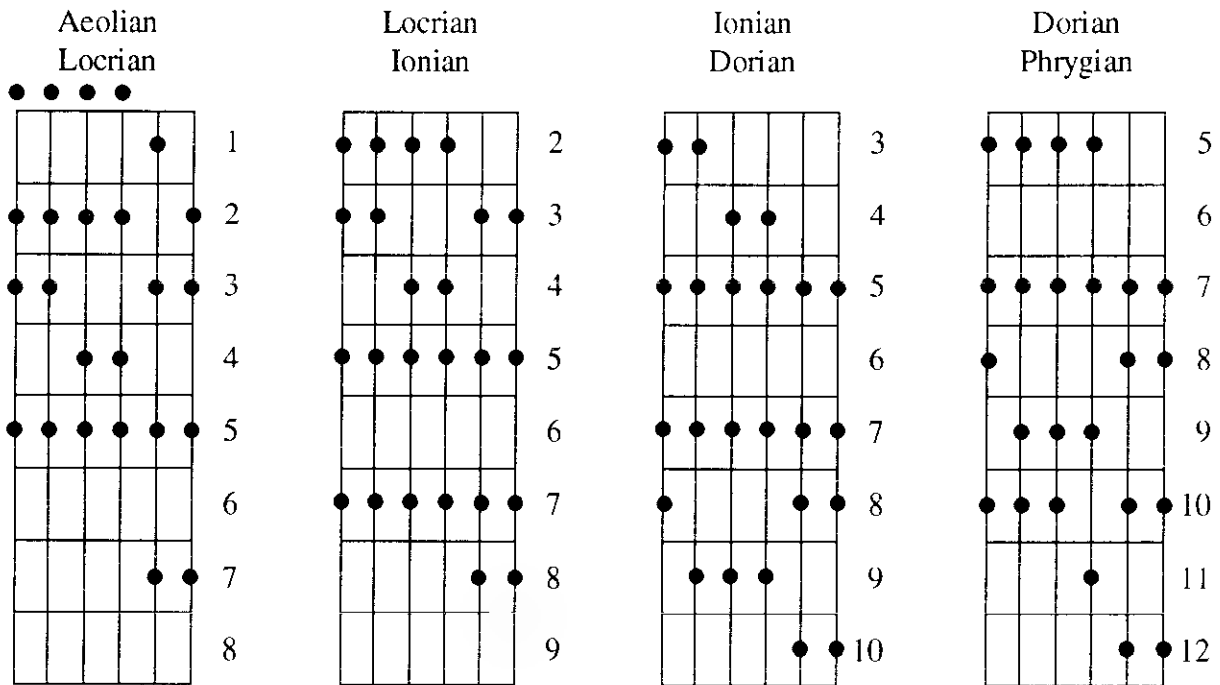
### ***C Major***

Ionian 8th fret	Dorian 10th fret	Phrygian 12th fret	Lydian 1st fret	Mixolydian 3rd fret	Aeolian 5th fret	Locrian 7th fret	Ionian 8th fret
C	D	E	F	G	A	B	C
Whole Step	Whole Step	Half Step	Whole Step	Whole Step	Whole Step	Half Step	

### ***A Minor***

Aeolian 5th fret	Locrian 7th fret	Ionian 8th fret	Dorian 10th fret	Phrygian 12th fret	Lydian 1st fret	Mixolydian 3rd fret	Aeolian 5th fret
A	B	C	D	E	F	G	A
Whole Step	Half Step	Whole Step	Whole Step	Half Step	Whole Step	Whole Step	

**Linking the Modes.** You might have already discovered that the modes connect to each other. The diagrams below show how they are connected in the relative keys of E minor and G major. You don't have to play anything here, just study the diagrams. Each one contains two modes within it.

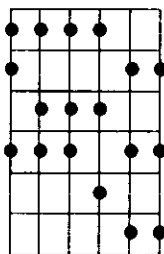


	E	A	D	G	B	E	Phrygian
1	F				C	F	Lydian
2		B	E	A			
3	G	C	F		D	G	Mixo.
4				B			
5	A	D	G	C	E	A	Aeolian
6					F		
7	B	E	A	D		B	Locrian
8	C	F			G	C	Ionian
9			B	E			
10	D	G	C	F	A	D	Dorian
11							
12	E	A	D	G	B	E	Phrygian
13	F				C	F	Lydian
14		B	E	A			
15	G	C	F		D	G	Mixo.
16				B			
17	A	D	G	C	E	A	Aeolian
18					F		
19	B	E	A	D		B	
20	C	F			G	C	
21			B	E			
22	D	G	C	F	A	D	

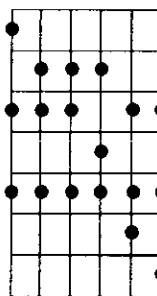
## C Major and A Minor

This reference sheet shows all of the notes in the C major and A minor scales on the entire fretboard. It also includes the individual mode diagrams in the order they would appear on the guitar. The starting fret for each mode is shown next to their names. The chart at the bottom lists the notes in each mode.

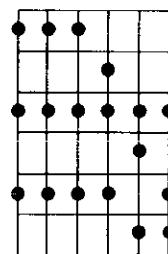
0 Phrygian



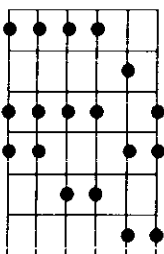
1 Lydian



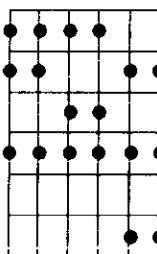
3 Mixo.



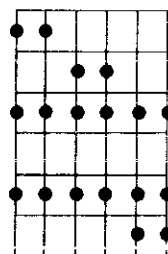
5 Aeolian



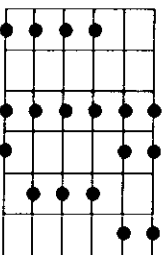
7 Locrian



8 Ionian



10 Dorian

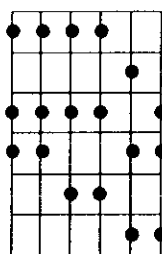


Phrygian	E F G A B C D E
Lydian	F G A B C D E F
Mixo.	G A B C D E F G
Aeolian	A B C D E F G A
Locrian	B C D E F G A B
Ionian	C D E F G A B C
Dorian	D E F G A B C D

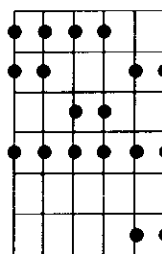
	E	A	D	G	B	E	Aeolian
1					C		
2	F#	B	E	A	F#		Locrian
3	G	C			D	G	Ionian
4			F#	B			
5	A	D	G	C	E	A	Dorian
6							
7	B	E	A	D	F#	B	Phrygian
8	C				G	C	Lydian
9		F#	B	E			
10	D	G	C		A	D	Mixo.
11				F#			
12	E	A	D	G	B	E	Aeolian
13					C		
14	F#	B	E	A	F#		Locrian
15	G	C			D	G	Ionian
16			F#	B			
17	A	D	G	C	E	A	Dorian
18							
19	B	E	A	D	F#	B	
20	C				G	C	
21		F#	B	E			
22	D	G	C		A	D	

## ***G Major and E Minor***

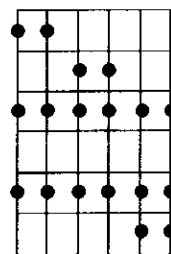
0 Aeolian



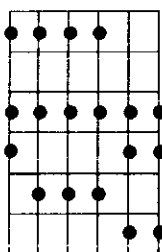
2 Locrain



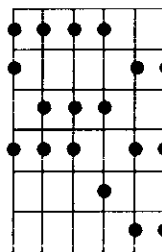
3 Ionian



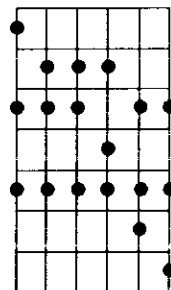
5 Dorian



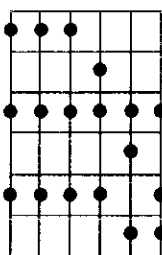
7 Phrygian



8 Lydian



10 Mixo.

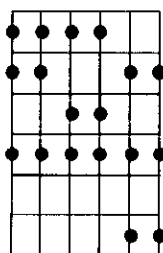


Aeolian	E	F#	G	A	B	C	D	E
Locrian	F#	G	A	B	C	D	E	F#
Ionian	G	A	B	C	D	E	F#	G
Dorian	A	B	C	D	E	F#	G	A
Phrygian	B	C	D	E	F#	G	A	B
Lydian	C	D	E	F#	G	A	B	C
Mixo.	D	E	F#	G	A	B	C	D

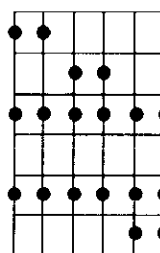
	E	A	D	G	E	Locrian	
1	F	B $\flat$			C	F	Ionian
2			E	A			
3	G	C	F	B $\flat$	D	G	Dorian
4							
5	A	D	G	C	E	A	Phrygian
6	B $\flat$				F	B $\flat$	Lydian
7		E	A	D			
8	C	F	B $\flat$		G	C	Mixo.
9				E			
10	D	G	C	F	A	D	Aeolian
11					B $\flat$		
12	E	A	D	G	E		Locrian
13	F	B $\flat$			C	F	Ionian
14			E	A			
15	G	C	F	B $\flat$	D	G	Dorian
16							
17	A	D	G	C	E	A	Aeolian
18	B $\flat$				F	B $\flat$	
19		E	A	D			
20	C	F	B $\flat$		G	C	
21				E			
22	D	G	C	F	A	D	

## F Major and D Minor

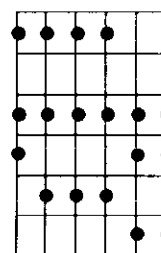
0 Locrian



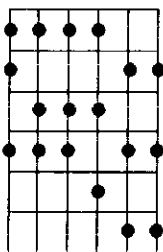
1 Ionian



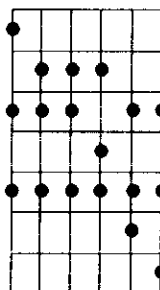
3 Dorian



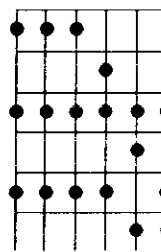
5 Phrygian



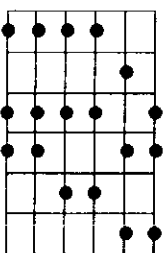
6 Lydian



8 Mixo.



10 Aeolian



Locrian	E	F	G	A	B $\flat$	C	D	E
Ionian	F	G	A	B $\flat$	C	D	E	F
Dorian	G	A	B $\flat$	C	D	E	F	G
Phrygian	A	B $\flat$	C	D	E	F	G	A
Lydian	B $\flat$	C	D	E	F	G	A	B $\flat$
Mixo.	C	D	E	F	G	A	B $\flat$	C
Aeolian	D	E	F	G	A	B $\flat$	C	D

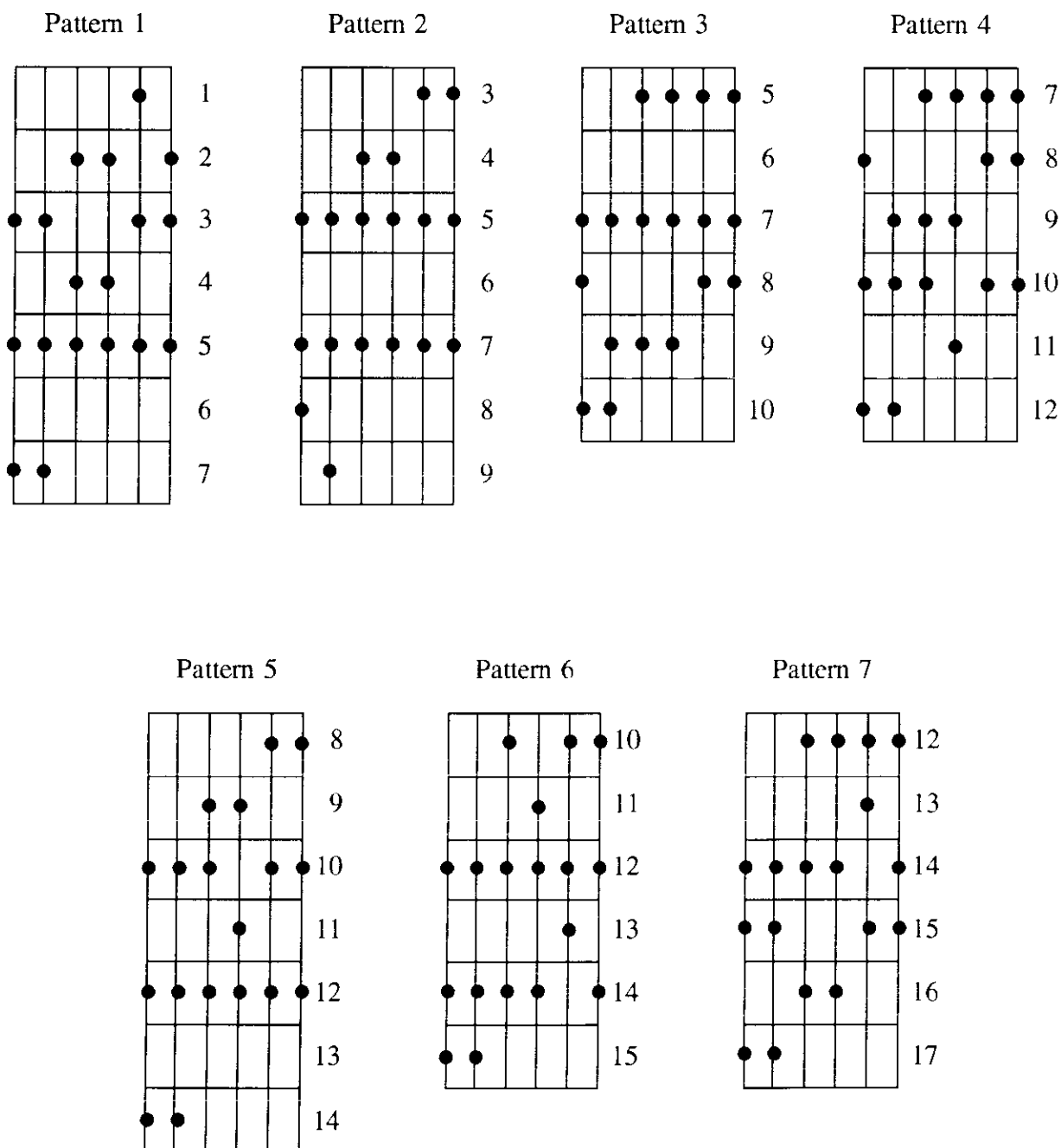


**Theory Quiz.** Test your knowledge of scales and modes before you go on to the exercises. The answers are written upside down at the bottom of the page.

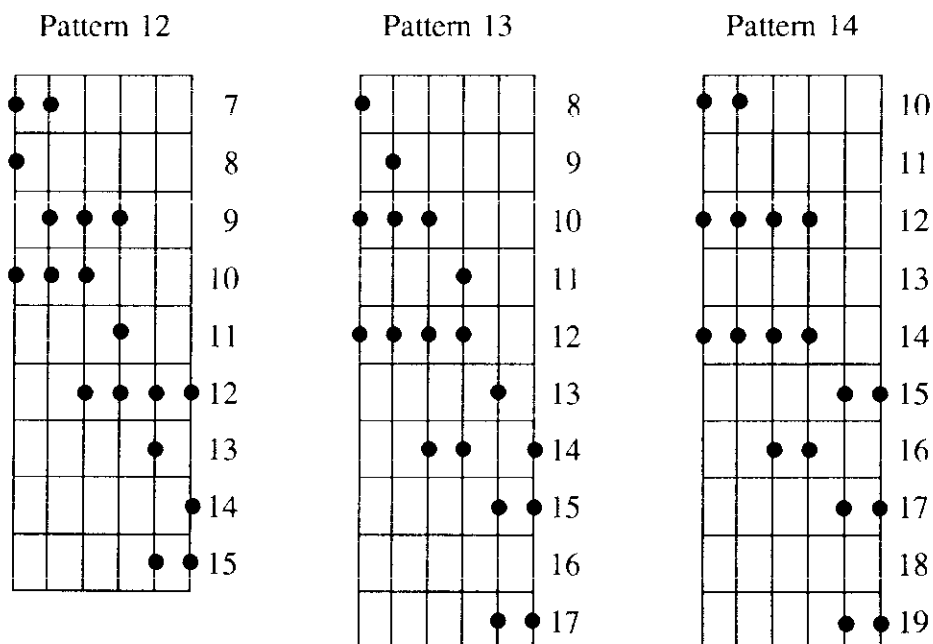
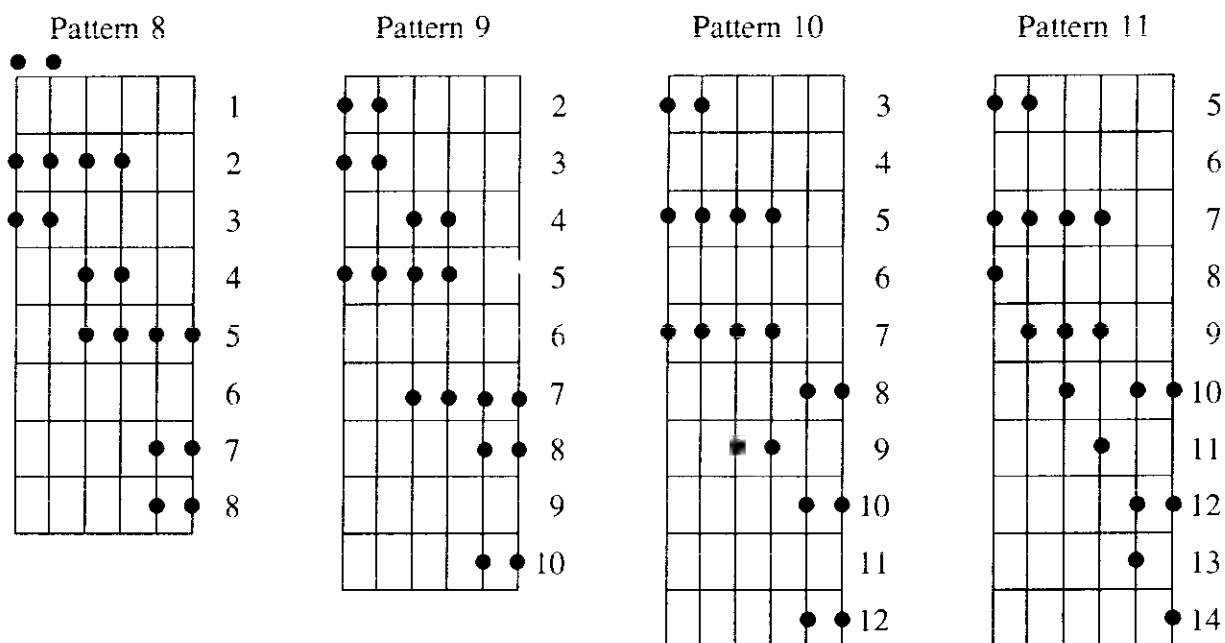
1. What note would the Mixolydian mode begin with if it were played in the key of G major?
2. What do the F major and D minor scales have in common?
3. If you were playing the B Locrian mode, what major key would you be playing in?
4. List all of the notes in the E major scale.
5. What minor scale contains the same notes as D major?
6. What major scale contains the same notes as A minor?
7. In the C# major scale, how many notes are sharp?
8. In any key, how many half steps down from the Dorian mode is the major scale?
9. List all of the notes in the B major scale.
10. What fret would the Lydian mode begin on if the Phrygian mode started on the eleventh fret, and both modes were played in the same key?
11. True or false? In the key of B minor, the Dorian mode would begin on the note “E.”
12. How many flat notes are there in the C minor scale?
13. What is the third note in the A major scale, and what mode would begin with that note?
14. True or false? The Aeolian mode would begin with the note “F” in the key of G major.
15. List all of the notes in the D# minor scale.

(1) D. (2) They both contain the same notes. (3) C major. (4) E F# G# A B C# D# E. (5) B minor. (6) C major (7) All of them. (8) Two. (9) Bb C D Eb F G A Bb. (10) The thirteenth fret or the first fret. (11) True. (12) Three. (13) C#, Phrygian. (14) False. (15) D# E# F# G# A# B C# D#.

**Modal Patterns.** These new patterns will greatly improve your ability to connect the modes together. Practice them thoroughly before you attempt the exercises. The patterns are made up of three modes each, and the notes are taken from the relative keys of G major and E minor. In pattern one, the notes on the first two strings are taken from the G Ionian mode. The middle strings are from F# Locrian, and the remaining two strings contain notes from E Aeolian.



The next seven patterns are also made up of portions of modes. This time they will be played *up* the fretboard and will cover many frets.



# ***E Minor Exercises***

The following exercises are made up of modes or portions of modes in the key of E minor. They will greatly improve your ability to solo and improvise. They will also improve your familiarity with the notes on the fretboard. Most of these exercises are very lengthy. The mode names are listed above each group of notes to make them easier to follow.

## ***E Minor Exercise #1***

	E Min.	F# Loc.	G Maj.	A Dor.	B Phr.	C Lyd.	D Mix.
1							
2							
3							
4							
5	0-2-3	2-3-5	3-5-7	5-7-9	7-9-10	9-10-12	10-12-14
6	0-2-3	2-3-5	3-5-7	5-7-8	7-8-10	8-10-12	10-12-14

	D Mix.	C Lyd.	B Phr.	A Dor.	G Maj.	F# Loc.	E Min.
1							
2							
3							
4	14-12-10	12-10-9	10-9-7	9-7-5	7-5-4	5-4-2	4-2-0
5	14-12-10	12-10-9	10-9-7	9-7-5	7-5-3	5-3-2	3-2-0
6							

	E Min.	F# Loc.	G Maj.	A Dor.	B Phr.	C Lyd.	D Mix.
1							
2							
3	0-2-4	2-4-5	4-5-7	5-7-9	7-9-11	9-11-12	11-12-14
4	0-2-4	2-4-5	4-5-7	5-7-9	7-9-10	9-10-12	10-12-14
5							
6							

	D Mix.	C Lyd.	B Phr.	A Dor.	G Maj.	F# Loc.	E Min.
1							
2	15-13-12	13-12-10	12-10-8	10-8-7	8-7-5	7-5-3	5-3-1
3	14-12-11	12-11-9	11-9-7	9-7-5	7-5-4	5-4-2	4-2-0
4							
5							
6							

	E Min.	F# Loc.	G Maj.	A Dor.	B Phr.	C Lyd.	D Mix.
1	2-3-5	3-5-7	5-7-8	7-8-10	8-10-12	10-12-14	12-14-15
2	1-3-5	3-5-7	5-7-8	7-8-10	8-10-12	10-12-13	12-13-15
3							
4							
5							
6							

## ***E Minor Exercise #2***

E Aeolian *sl.* F# Locrian

G Ionian *sl.* A Dorian

B Phrygian *sl.* C Lydian

D Mixolydian *sl.* E Aeolian

D Mixolydian *sl.* C Lydian

B Phrygian *sl.* A Dorian

G Ionian *sl.* F# Locrian E Aeolian

## ***E Minor Exercise #3***

	E Min.	F# Loc.	G Maj.	A Dor.	B Phr.	C Lyd.	D Mix.
1							
2							
3							
4							
5	0-2-3	5-3-2	3-5-7	9-7-5	7-9-10	12-10-9	10-12-14
6	0-2-3	5-3-2	3-5-7	8-7-5	7-8-10	12-10-8	10-12-14

	D Mix.	C Lyd.	B Phr.	A Dor.	G Maj.	F# Loc.	E Min.
1							
2							
3							
4	14-12-10	9-10-12	10-9-7	5-7-9	7-5-4	2-4-5	4-2-0
5	14-12-10	9-10-12	10-9-7	5-7-9	7-5-3	2-3-5	3-2-0
6							

	E Min.	F# Loc.	G Maj.	A Dor.	B Phr.	C Lyd.	D Mix.
1							
2							
3	0-2-4	5-4-2	4-5-7	9-7-5	7-9-11	12-11-9	11-12-14
4	0-2-4	5-4-2	4-5-7	9-7-5	7-9-10	12-10-9	10-12-14
5							
6							

	D Mix.	C Lyd.	B Phr.	A Dor.	G Maj.	F# Loc.	E Min.
1							
2	15-13-12	10-12-13	12-10-8	7-8-10	8-7-5	3-5-7	5-3-1
3	14-12-11	9-11-12	11-9-7	5-7-9	7-5-4	2-4-5	4-2-0
4							
5							
6							

	E Min.	F# Loc.	G Maj.	A Dor.	B Phr.	C Lyd.	D Mix.
1	2-3-5	7-5-3	5-7-8	10-8-7	8-10-12	14-12-10	12-14-15
2	1-3-5	7-5-3	5-7-8	10-8-7	8-10-12	13-12-10	12-13-15
3							
4							
5							
6							

## ***E Minor Exercise #4***

	E Min.	F# Loc.	G Maj.	A Dor.	B Phr.	C Lyd.	D Mix.	E Min.
1								
2								
3								
4								
5								
6	0-2-3-2 3 5-3-5-7-5 7 8-7-8-10-8 10-12-10-12 14-12-14-15							

	E Min.	D Mix.	C Lyd.	B Phr.	A Dor.	G Maj.	F# Loc.	E Min.
1								
2								
3								
4								
5	15-14-12-14-12 10-12-10-9-10-9 7-9-7-5-7-5 3-5-3-2-3 2 0							
6								

	E Min.	F# Loc.	G Maj.	A Dor.	B Phr.	C Lyd.	D Mix.	E Min.
1								
2								
3								
4	0-2-4-2 4 5-4-5-7-5-7-9-7-9-10-9 10-12-10-12 14-12-14-16							
5								
6								

	E Min.	D Mix.	C Lyd.	B Phr.	A Dor.	G Maj.	F# Loc.	E Min.
1								
2								
3	16-14-12-14-12-11-12-11-9-11-9-7-9-7-5-7-5-4-5-4-2-4-2-0							
4								
5								
6								

	E Min.	F# Loc.	G Maj.	A Dor.	B Phr.	C Lyd.	D Mix.	E Min.
1								
2	1-3-5-3-5-7-5-7-8-7-8-10-8-10-12-10-12-13-12-13-15-13-15-17							
3								
4								
5								
6								

	E Min.	D Mix.	C Lyd.	B Phr.	A Dor.	G Maj.	F# Loc.	E Min.
1	17-15-14-15-14-12-14-12 10-12 10-8-10-8 7-8-7-5-7-5-3-5-3-2							
2								
3								
4								
5								
6								

## ***E Minor Exercise #5***

### E Aeolian and F# Locrian

1				3-5-7		7-5-3		
2				1-3-5			5-3-1	
3				2-4-5			5-4-2	
4			0-2-4				4-2-0	
5		2-3-5					5-3-2	
6	0-2-3							3-2-0

### F# Locrian and G Ionian

1				5-7-8		8-7-5		
2				3-5-7			7-5-3	
3			4-5-7				7-5-4	
4			2-4-5				5-4-2	
5		3-5-7					7-5-3	
6	2-3-5							5-3-2

### G Ionian and A Dorian

1				7-8-10		10-8-7		
2				5-7-8			8-7-5	
3			5-7-9				9-7-5	
4			4-5-7				7-5-4	
5		5-7-9					9-7-5	
6	3-5-7							7-5-3

### A Dorian and B Phrygian

1				8-10-12		12-10-8		
2				7-8-10			10-8-7	
3			7-9-11				11-9-7	
4			5-7-9				9-7-5	
5		7-9-10					10-9-7	
6	5-7-8							8-7-5

### B Phrygian and C Lydian

1				10-12-14		14-12-10		
2				8-10-12			12-10-8	
3			9-11-12				12-11-9	
4			7-9-10				10-9-7	
5		9-10-12					12-10-9	
6	7-8-10							10-8-7

### C Lydian and D Mixolydian

1				12-14-15		15-14-12		
2				10-12-13			13-12-10	
3			11-12-14				14-12-11	
4			9-10-12				12-10-9	
5		10-12-14					14-12-10	
6	8-10-12							12-10-8

### D Mixolydian and E Aeolian

1				14-15-17		17-15-14		
2				12-13-15			15-13-12	
3			12-14-16				16-14-12	
4			10-12-14				14-12-10	
5		12-14-15					15-14-12	
6	10-12-14							14-12-10



## ***E Minor Exercise #6***

E Aeolian and F# Locrian

1						2 3-5 7 5 3
2					1-3-5-7-5 3	
3				0-2-4-5 4 2		
4			0-2-4-5 4 2			
5		0-2-3 5 3 2				
6	0-2-3-5-3-2					

1	7-5-3-2-3-5					
2		7-5-3-1-3-5				
3			5-4-2-0-2 4			
4				5-4-2-0-2 4		
5					5 3 2-0-2-3	
6						5-3-2-0-2 3

F# Locrian and G Ionian

1						3-5-7-8-7-5
2					3-5-7-8-7-5	
3				2-4-5-7-5 4		
4			2 4 5 7 5 4			
5		2 3 5 7 5 3				
6	2 3 5 7 5 3					

1	8-7-5-3-5-7					
2		8-7-5-3-5-7				
3			7 5 4 2 4 5			
4				7-5-4-2-4-5		
5					7 5 3 2 3 5	
6						7 5 3 2-3-5

G Ionian and A Dorian

1						5 7 8 10-8 7
2					5 7 8 10 8 7	
3				4-5 7 9 7 5		
4			4-5 7 9 7 5			
5		3-5-7-9-7-5				
6	3 5 7 8 7-5					

1	10-8-7-5-7-8					
2		10-8-7-5-7-8				
3			9-7-5-4-5-7			
4				9-7-5-4-5-7		
5					9-7-5-3-5-7	
6						8-7-5-3-5-7

Exercise #6 is continued on the next page.

[illegible]

1 12-10-8-7-8-10

2 12-10-8-7-8 10

3 11-9-7-5-7-9

4 10-9 7 5 7 9

5 10-9 7-5-7-9

6 10-8-7-5-7-8

1 8-10-12-14-12 10  
2  
3 8-10-12-13-12-10  
4 7 9-11 12 11 9  
5 7 9-10-12 10-9  
6 7-8-10-12-10-8

1 14-12-10-8-10-12

2 13 12 10-8-10 12

3 12 11 9-7 9-11

4 12-10-9 7-9-10

5 12-10-9-7-9-10

6 12-10-8-7 8-10

n	Number of nodes	Sequence of nodes
1	10	10-12-14-15-14-12
2	12	10-12-13-15-13-12
3	11	9-11-12-14-12-11
4	10	9-10-12-14-12-10
5	10	9-10-12-14-12-10
6	10	8-10-12-14-12-10

Figure 1 is a Gantt chart illustrating the schedule of the European Congress of Mathematics (ECM) editions. The chart is organized into six horizontal rows, each representing a different edition. The top row (15th edition) shows a long period from 1998 to 2002. The second row (14th edition) shows a period from 2002 to 2006. The third row (12th edition) shows a period from 2006 to 2010. The fourth row (10th edition) shows a period from 2010 to 2014. The fifth row (8th edition) shows a period from 2014 to 2018. The bottom row (6th edition) shows a period from 2018 to 2022. The chart uses a color-coded system: blue for the 15th edition, green for the 14th, yellow for the 12th, orange for the 10th, red for the 8th, and purple for the 6th. The chart also includes a timeline at the bottom with years from 1998 to 2022.

1 12 14-15-17-15-14  
2 12-13-15-17 15-13  
3  
4 11 12 14-16-14-12  
5 10-12-14-16-14-12  
6 10-12-14-15-14-12

Figure 1 illustrates the evolution of the number of nodes in a network over time. The vertical axis represents time steps from 1 to 6. The horizontal axis represents the number of nodes. The network starts at 17 nodes at time 1 and decreases to 14 nodes at time 6. The sequence of node counts is: 17, 15, 14, 12, 14, 15 at time 1; 17, 15, 13, 12, 13, 15 at time 2; 16, 14, 12, 11, 12, 14 at time 3; 16, 14, 12, 10, 12, 14 at time 4; 15, 14, 12, 10, 12, 14 at time 5; and 15, 14, 12, 10, 12, 14 at time 6.

## ***E Minor Exercise #7***

	E Aeolian	F# Locrian	G Ionian
1			7 8-10
2			5 7 8
3		2 4 5	4 5-7
4	0-2 4	2 4 5	4 5 7
5	0-2-3	2-3-5	
6	0-2-3		

1	10-8-7
2	10-8-7
3	8 7 5
4	9-7-5
5	7 5 4
6	5-4-2

	F# Locrian	G Ionian	A Dorian
1			8-10-12
2			7-8-10
3		4 5-7	5 7 9
4	2 4 5	4 5-7	5-7-9
5	2 3 5	3-5-7	
6	2 3 5		

1	12-10-8
2	12-10-8
3	10-8 7
4	11 9 7
5	9-7-5
6	7 5 4

	G Ionian	A Dorian	B Phrygian
1			10-12 14
2			8 10-12
3		5-7 9	7 9-11
4	4-5 7	5-7-9	7-9-10
5	3 5-7	5 7 9	
6	3-5 7		

1	14-12-10
2	13-12-10
3	12-10-8
4	12 11-9
5	11 9-7
6	9 7 5

Exercise #7 is continued on the next page.

	A Dorian	B Phrygian	C Lydian	D Mixolydian
1				12-14-15
2			10-12-13	12-13-15
3		7-9-11	9-11-12	11-12-14
4	5-7-9	7-9-10	9-10-12	
5	5-7-9	7-9-10		
6	5-7-8			

1	15-14-12			
2	15-13-12	13-12-10		
3	14-12-11	12-11-9	11-9-7	
4		12-10-9	10-9-7	9-7-5
5			10-9-7	9-7-5
6				8-7-5

	B Phrygian	C Lydian	D Mixolydian	E Aeolian
1				14-15-17
2			12-13-15	13-15-17
3		9-11-12	11-12-14	12-14-16
4	7-9-10	9-10-12	10-12-14	
5	7-9-10	9-10-12		
6	7-8-10			

1	17-15-14			
2	17-15-13	15-13-12		
3	16-14-12	14-12-11	12-11-9	
4		14-12-10	12-10-9	10-9-7
5			12-10-9	10-9-7
6				10-8-7

	C Lydian	D Mixolydian	E Aeolian	F# Locrian
1				15-17-19
2			13-15-17	15-17-19
3		11-12-14	12-14-16	14-16-17
4	9-10-12	10-12-14	12-14-16	
5	9-10-12	10-12-14		
6	8-10-12			

1	19-17-15			
2	19-17-15	17-15-13		
3	17-16-14	16-14-12	14-12-11	
4		16-14-12	14-12-10	12-10-9
5			14-12-10	12-10-9
6				12-10-8

	D Mixolydian	E Aeolian	F# Locrian	G Ionian
1				17-19-20
2			15-17-19	17-19-20
3		12-14-16	14-16-17	16-17-19
4	10-12-14	12-14-16	14-16-17	
5	10-12-14	12-14-15		
6	10-12-14			

1	20-19-17			
2	20-19-17	19-17-15		
3	19-17-16	17-16-14	16-14-12	
4		17-16-14	16-14-12	14-12-10
5			15-14-12	14-12-10
6				14-12-10

## ***E Minor Exercise #8***

### E Aeolian and F# Locrian

1						2-3-5	3-5-7
2						1-3	5-3-5 7
3					0-2	4-2-4-5	
4				0-2	4-2-4-5		
5			0-2	3-2-3-5			
6	0-2-3	2-3-5					

1	7-5	3-5-3-2					
2		7-5-3	5-3-1				
3			5-4	2-4-2 0			
4				5	4-2-4-2 0		
5					5-3	2-3-2-0	
6						5	3 2 3-2-0

### F# Locrian and G Ionian

1						3-5-7	5-7-8
2						3	5-7-5 7-8
3					2	4-5-4-5 7	
4				2	4-5-4-5 7		
5			2-3	5-3-5-7			
6	2-3-5	3-5-7					

1	8	7-5-7-5-3					
2		8-7-5-7-5-3					
3			7	5-4-5 4-2			
4				7-5-4-5-4-2			
5					7-5-3-5	3-2	
6						7-5-3-5-3-2	

### G Ionian and A Dorian

1						5-7-8-7-8	10
2						5	7-8-7 8 10
3					4-5	7-5-7-9	
4				4-5-7	5 7-9		
5			3-5	7 5-7-9			
6	3-5-7-5	7 8					

1	10-8	7 8-7-5					
2		10-8-7-8	7-5				
3			9-7	5 7 5-4			
4				9	7-5-7-5-4		
5					9-7-5-7	5-3	
6						8-7-5-7	5 3

Exercise #8 is continued on the next page.

1  
2  
3  
4  
5  
6

5 7-8-7-8-10 5-7-9-7-9-10 5-7-9-7 9-11 7-8-10-8 10-12

[illegible]

1 8-10-12-10-12-14  
2 8-10-12-10-12-13  
3 7-9-11-9-11-12  
4 7-9-10-9-10-12  
5 7-9-10-9-10-12  
6 7-8-10-8-10-12

1 14-12-10-12-10-8

2 13-12-10-12-10-8

3 12-11-9-11 9-7

4 12 10-9-10-9-7

5 12 10-9-10-9-7

6 12-10-8-10-8-7

1 \_\_\_\_\_ 10-12 14-12 14-15  
2 \_\_\_\_\_ 10-12-13-12 13-15  
3 \_\_\_\_\_ 9-11-12-11 12-14  
4 \_\_\_\_\_ 9-10-12-10-12 14  
5 \_\_\_\_\_ 9 10-12 10-12-14  
6 \_\_\_\_\_ 8-10-12-10-12-14

Figure 1 illustrates the evolution of the number of nodes in a network over time. The vertical axis represents time steps from 1 to 6. The horizontal axis represents the number of nodes, with labels 10, 9, 8, 11, 12, 13, 14, 15. The network starts at 15 nodes at time 1 and decreases to 8 nodes by time 6. The sequence of node counts is: 15, 14, 12, 14, 12, 10 at time 1; 15, 13, 12, 13, 12, 10 at time 2; 14, 12, 11, 12, 11, 9 at time 3; 14, 12, 10, 12, 10, 9 at time 4; 14, 12, 10, 12, 10, 9 at time 5; and 14, 12, 10, 12, 10, 8 at time 6.

1 \_\_\_\_\_ 12 14-15-14-15-17  
2 \_\_\_\_\_ 12 13-15-13-15-17  
3 \_\_\_\_\_ 11-12 14-12-14-16  
4 \_\_\_\_\_ 10-12-14-12-14-16  
5 \_\_\_\_\_ 10-12 14-12-14-15  
6 \_\_\_\_\_ 10-12-14-12-14-15

Figure 1 is a phylogenetic tree showing the relationships between six taxa (1-6) based on 12 morphological characters. The tree is rooted at 1 (17-15-14-15-14-12) and branches out to 2 (17 15-13-15-13-12), 3 (16-14-12 14-12-11), 4 (16-14-12-14-12 10), 5 (15-14-12-14-12 10), and 6 (15-14-12-14-12-10).

### ***E Minor Exercise #9***

### E Aeolian to B Phrygian

1  
2  
3  
4  
5  
6

0-2-3 2-3 5 2 4 5 4 5 7 4-5-7 5-7 9 7-8-10 8-10-12 8-10-12

F# Locrian to C Lydian

1 14 12 10  
 2 13 12 10 12 10 8  
 3 11 9 7 9 7 5  
 4 9 7 5 7 5 4  
 5 7 5 3 5 3 2  
 6 5 3 2

### G Ionian to D Mixolydian

1 12-14-15

2 10-12 13-12-13-15

3 7 9 11 9 11 12

4 5-7-9 7-9-10

5 3-5-7 5 7 9

6 3 5 7

1 15-14-12

2 15-13-12 13-12-10

3 12-11-9 11-9-7

4 10-9-7 9-7-5

5 9-7-5 7-5-3

6 7-5-3

Exercise #9 is continued on the next page.

### A Dorian to E Aeolian

1  
2  
3  
4  
5  
6

14-15-17  
12-13-15 13-15-17  
9-11-12 11-12-14  
7-9-10 9-10-12  
5-7-9 7-9-10  
5-7-8

1  
2  
3  
4  
5  
6

17-15-14  
17-15-13 15-13-12  
14-12-11 12-11-9  
12-10-9 10-9-7  
10-9-7 9-7-5  
8-7-5

### B Phrygian to F# Locrian

1  
2  
3  
4  
5  
6

15-17 19  
13-15-17 15-17 19  
11-12-14 12-14-16  
9-10-12 10-12-14  
7-9-10 9-10-12  
7-8-10

1  
2  
3  
4  
5  
6

19-17-15  
19-17-15 17-15-13  
16-14-12 14-12-11  
14-12-10 12-10-9  
12-10-9 10-9-7  
10-8-7

### C Lydian to G Ionian

1  
2  
3  
4  
5  
6

17-19-20  
15-17-19 17-19-20  
12-14-16 14-16-17  
10-12-14 12-14-16  
9-10-12 10-12-14  
8-10-12

1  
2  
3  
4  
5  
6

20-19-17  
20-19-17 19-17-15  
17-16-14 16-14-12  
16-14-12 14-12-10  
14-12-10 12-10-9  
12-10-8

### D Mixolydian to A Dorian

1  
2  
3  
4  
5  
6

19-20-22  
17-19-20 19-20-22  
14-16-17 16-17-19  
12-14-16 14-16-17  
10-12-14 12-14-15  
10-12-14

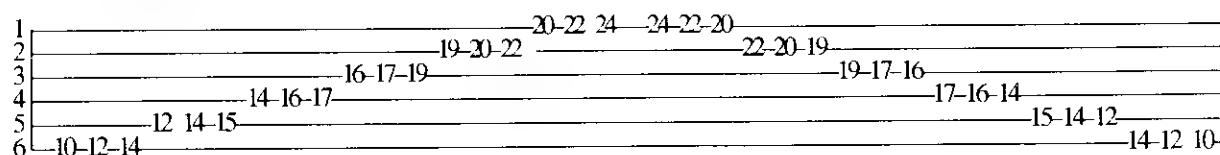
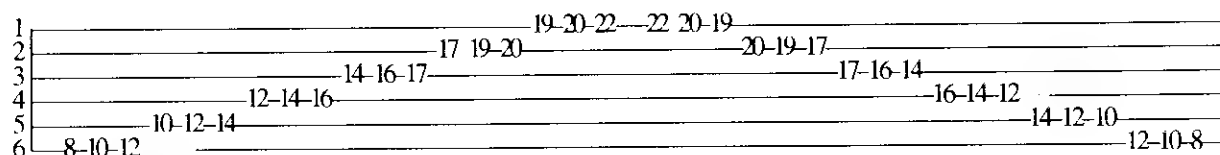
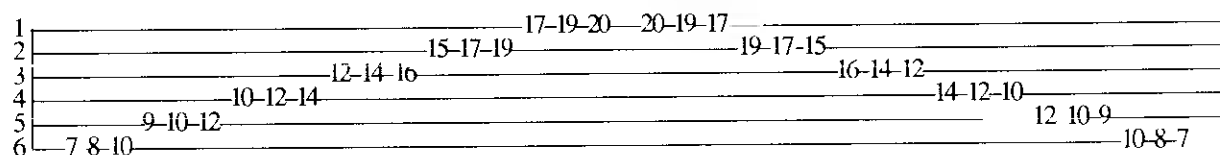
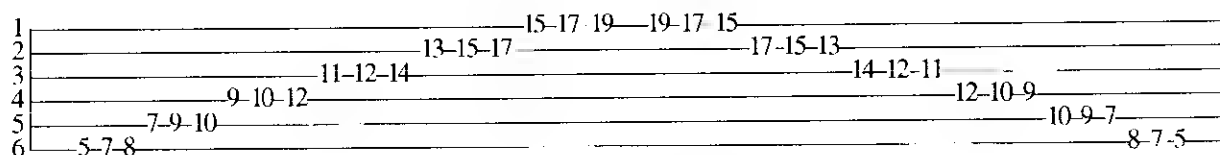
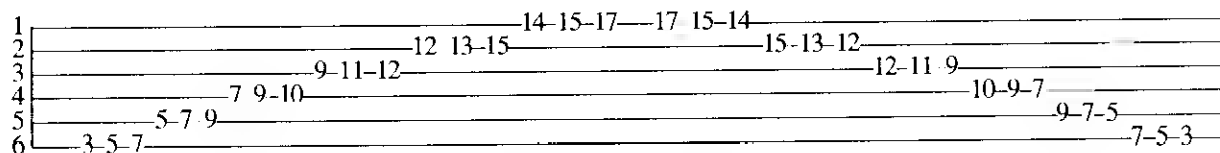
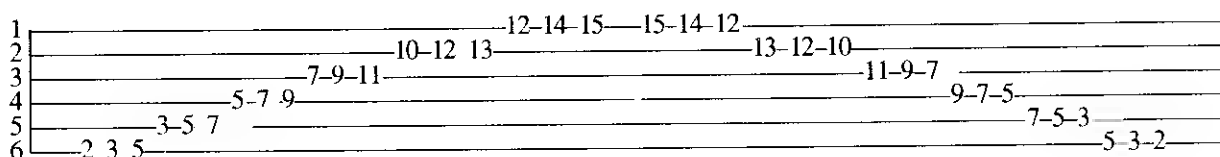
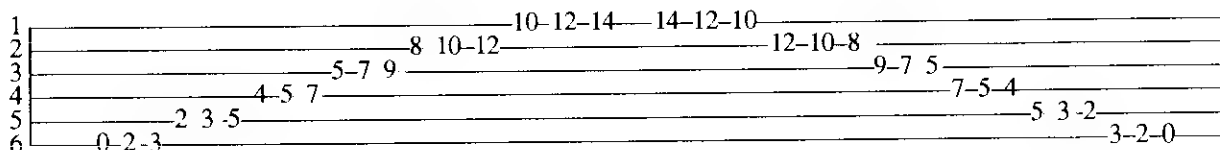
1  
2  
3  
4  
5  
6

22-20-19  
22-20-19 20-19-17  
19-17-16 17-16-14  
17-16-14 16-14-12  
15-14-12 14-12-10  
14-12-10



Begin this exercise by playing the first string from the E Aeolian mode. When you move to the next string, move up to the next mode also. You will be covering a wide range of frets. Play as far up the guitar neck as you can.

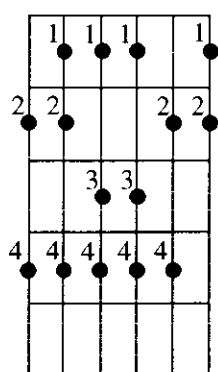
## ***E Minor Exercise #10***



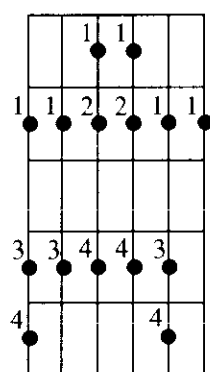
## Optional Modes

Knowing more than one form of each mode is a good way to add variety to your music. The modes that you've been using had three notes per string. These can have either one, two or three notes per string. You should practice these once in a while so you don't get in the habit of playing three notes all the time. You may also find them useful when creating riffs.

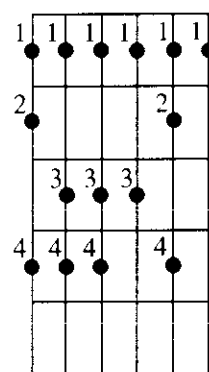
Ionian



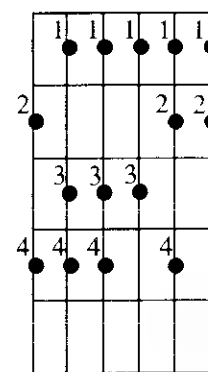
Dorian



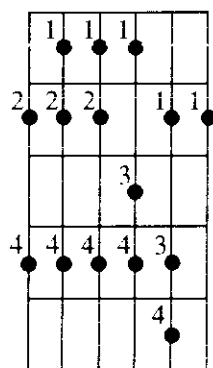
Phrygian



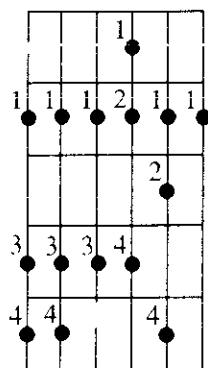
Lydian



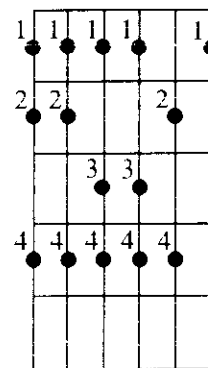
Mixolydian



Aeolian



Locrian

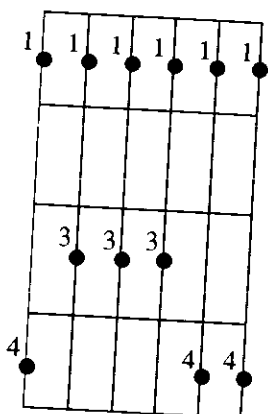




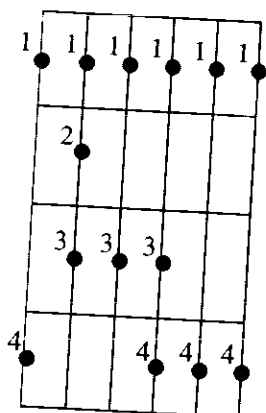
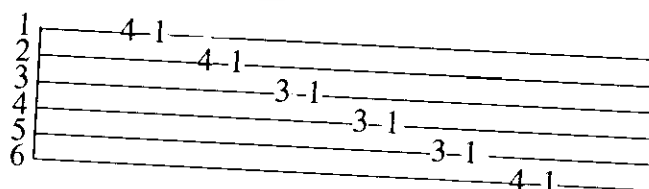
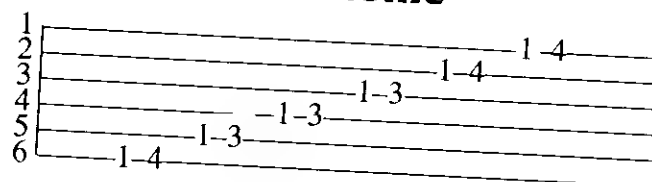
# Chapter 7

## The Pentatonic and Blues Scales

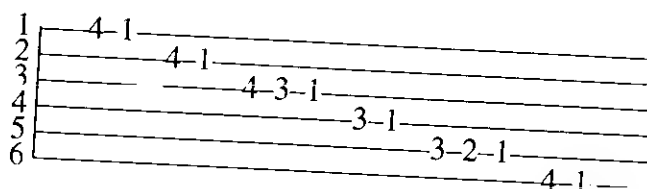
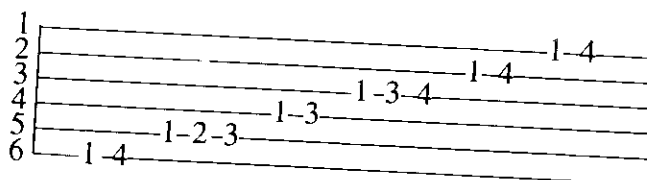
These scales are widely used in Blues/Rock music. Unlike the scales and modes covered earlier, the pentatonic scale contains five notes and the blues scale has six. Once again, practice the scale patterns before you attempt the exercises.



### Pentatonic



### Blues



**The Pentatonic Scale.** The word “penta” means five, and “tonic” means tones. The pentatonic scale is made up of five notes taken from the minor scale. These notes are the first, third, fourth, fifth, and seventh notes of the scale. Here are some examples of pentatonic scales in three different keys.

### ***E Minor***

E	F#	G	A	B	C	D	E
1	2	3	4	5	6	7	1

### ***E Minor Pentatonic***

E	G	A	B	D	E
1	3	4	5	7	1

### ***D Minor***

D	E	F	G	A	Bb	C	D
1	2	3	4	5	6	7	1

### ***D Minor Pentatonic***

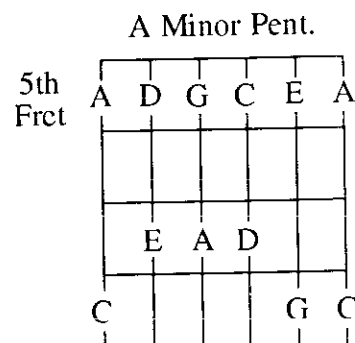
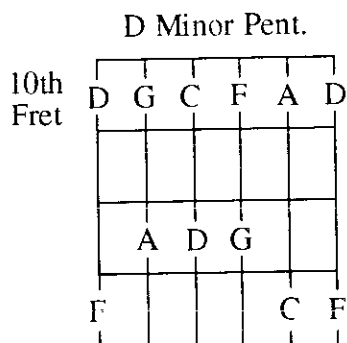
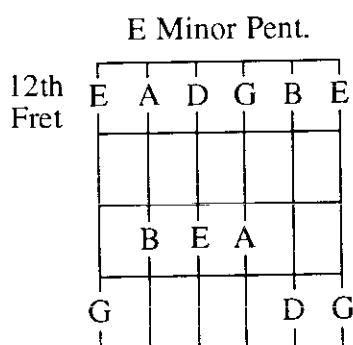
D	F	G	A	C	D
1	3	4	5	7	1

### ***A Minor***

A	B	C	D	E	F	G	A
1	2	3	4	5	6	7	1

### ***A Minor Pentatonic***

A	C	D	E	G	A
1	3	4	5	7	1



**The Blues Scale.** This scale is also based on the minor scale and it is very similar to the pentatonic scale. As you can see in the examples below, if you add one extra note to the pentatonic scale, a flat fifth, you now have a blues scale. Simply lower the fifth note of the minor scale by one half step to find the flat fifth.

### ***E Minor***

E	F#	G	A	B	C	D	E
1	2	3	4	5	6	7	1

### ***E Blues***

E	G	A	B $\flat$	B	D	E
1	3	4	$\flat$ 5	5	7	1

### ***D Minor***

D	E	F	G	A	B $\flat$	C	D
1	2	3	4	5	6	7	1

### ***D Blues***

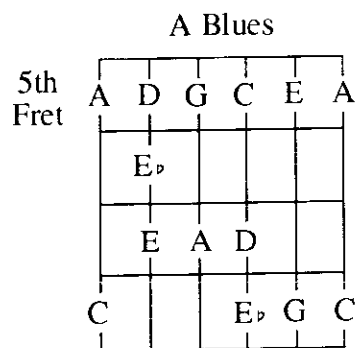
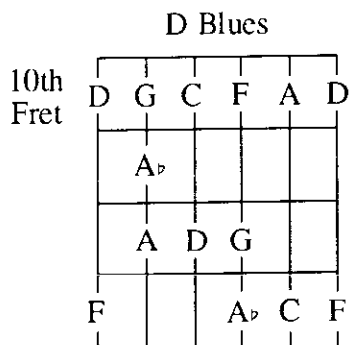
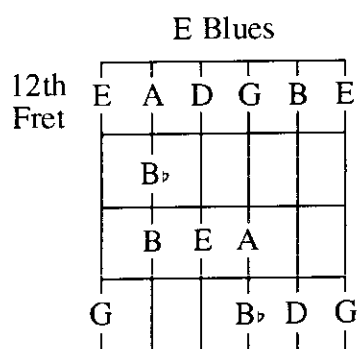
D	F	G	A $\flat$	A	C	D
1	3	4	$\flat$ 5	5	7	1

### ***A Minor***

A	B	C	D	E	F	G	A
1	2	3	4	5	6	7	1

### ***A Blues***

A	C	D	E $\flat$	E	G	A
1	3	4	$\flat$ 5	5	7	1

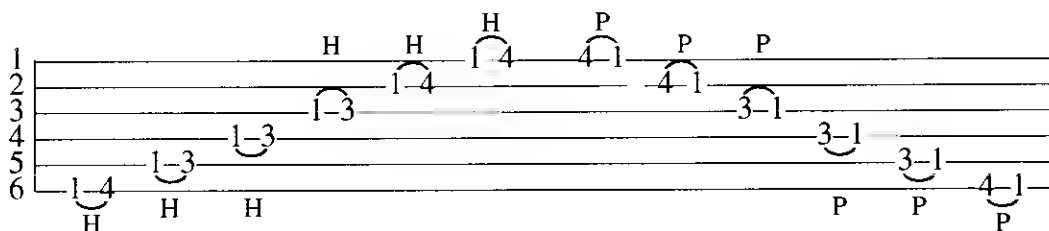


## ***Pentatonic Scale Exercises***

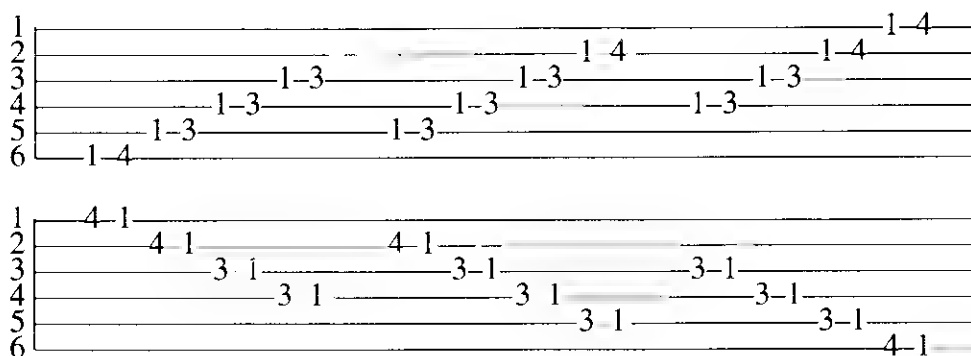
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Here are ten exercises for the pentatonic scale. Since pentatonic and blues are so similar, most of these exercises could be altered by adding the extra note in the blues scale. Try it.

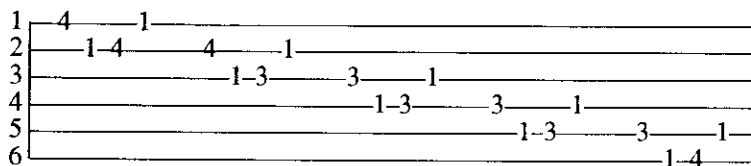
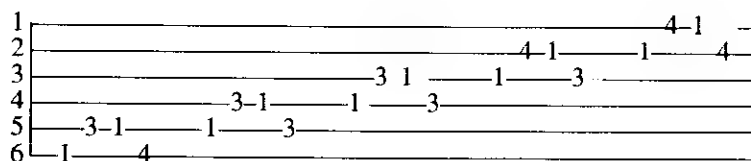
### ***Pentatonic Exercise #1***



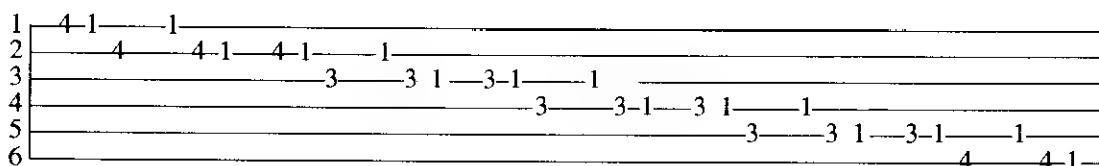
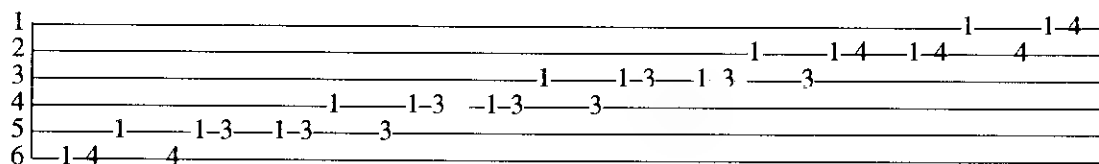
### ***Pentatonic Exercise #2***



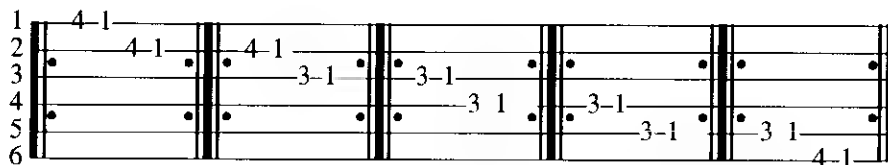
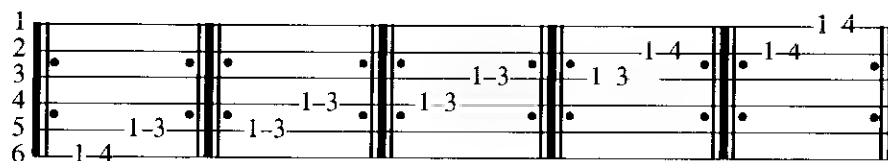
### ***Pentatonic Exercise #3***



### ***Pentatonic Exercise #4***

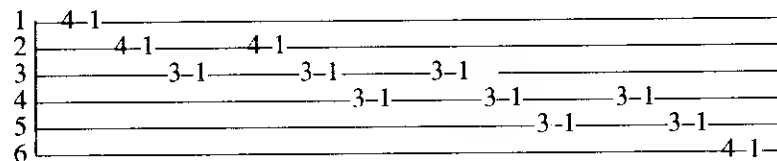
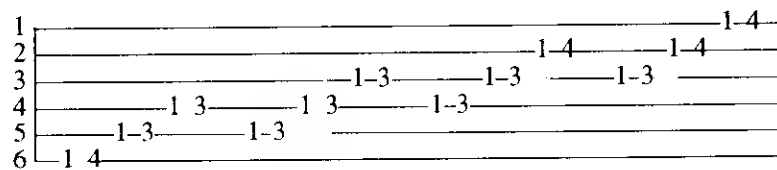


### ***Pentatonic Exercise #5***

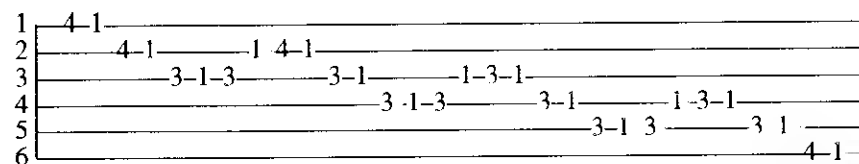
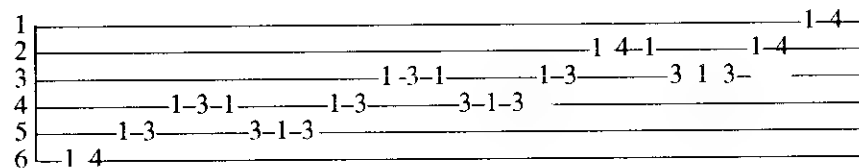




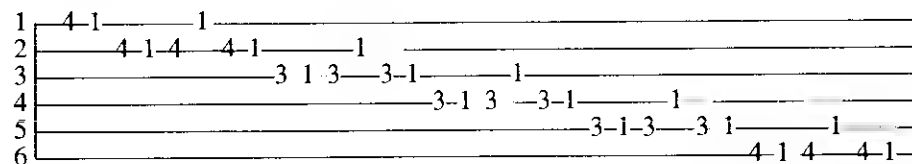
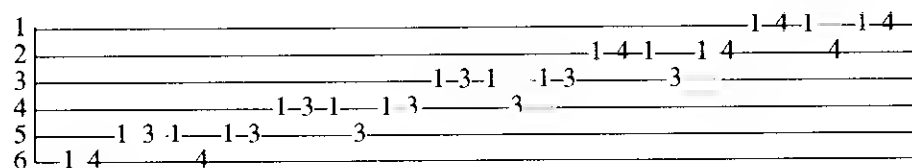
## ***Pentatonic Exercise #6***



## ***Pentatonic Exercise #7***



## ***Pentatonic Exercise #8***



## ***Pentatonic Exercise #9***

The exercise consists of four staves, each with a six-line staff and fingerings (1-4) indicated above or below the notes. The notes are placed on the lines and spaces of the staff, with slurs indicating the sequence of notes. The exercise is written in a key where the notes correspond to the pentatonic scale (1-2-3-4-5-6).

Staff 1: 1-4, 1-4, 4, 1-4, 4, 1-3-1, 1-3, 3-1, 1-3, 1-3, 3, 1-4, 4.

Staff 2: 1-3, 3-1, 3-1, 1-3, 3-1, 1-3, 3-1, 1-3, 3-1, 1-3, 3-1, 1-3, 3-1, 4.

Staff 3: 1-4, 1-3, 3-1, 3-1, 3-1, 1-3, 1-3, 1-3, 3-1, 3-1, 1-3, 3-1, 4.

Staff 4: 1-4, 1-3, 3-1, 3-1, 3-1, 1-3, 1-3, 1-3, 3-1, 3-1, 1-3, 3-1, 4.

## ***Pentatonic Exercise #10***

The exercise consists of two staves, each with a six-line staff and fingerings (1-4) indicated above or below the notes. The notes are placed on the lines and spaces of the staff, with slurs indicating the sequence of notes. The exercise is written in a key where the notes correspond to the pentatonic scale (1-2-3-4-5-6).

Staff 1: 1-4, 1-3-1, 1-3, 3, 1-3, 1-3, 3, 1-4-1, 1-4, 4.

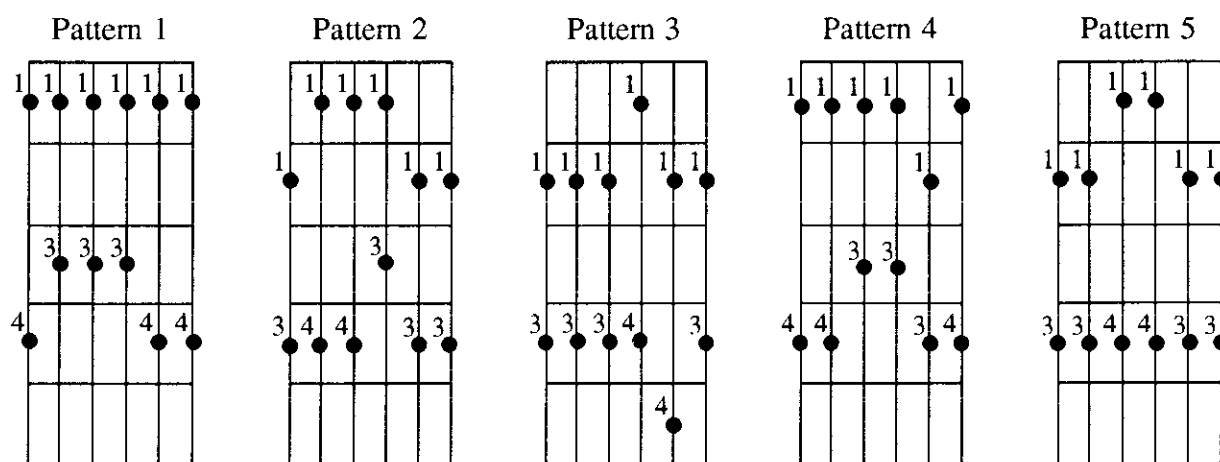
Staff 2: 4-1, 4-1-4, 4-1, 3-1-3, 3-1, 3-1, 3-1, 3-1, 3-1, 3-1, 3-1, 4-1-4.

# Chapter 8

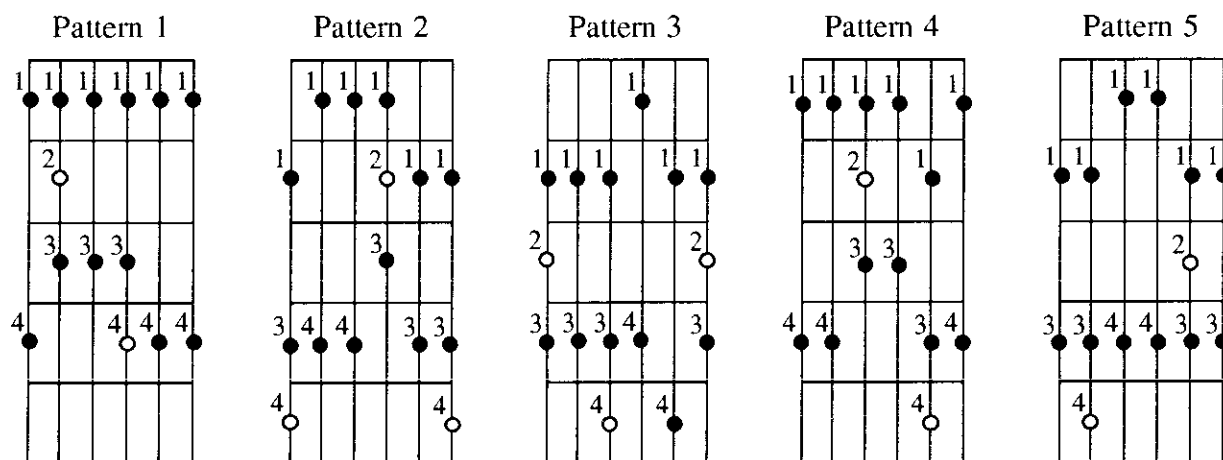
## Pentatonic and Blues Patterns

With the five pentatonic patterns shown here, you will be able to play in key up and down the entire fretboard using notes from the pentatonic scale. The blues patterns are similar to the pentatonics except that they have a flatted fifth note added to them. That note is indicated by the symbol “o” on the fretboard diagrams.

### Pentatonic Patterns

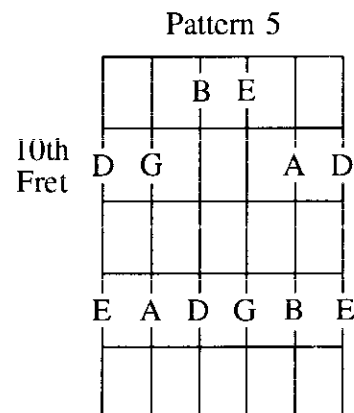
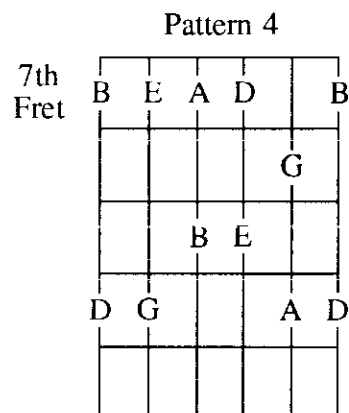
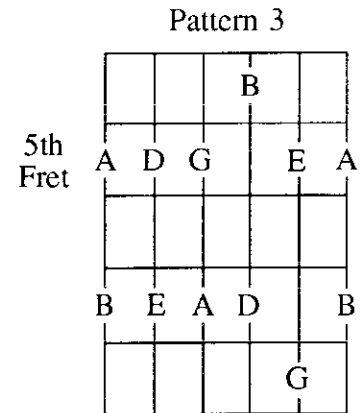
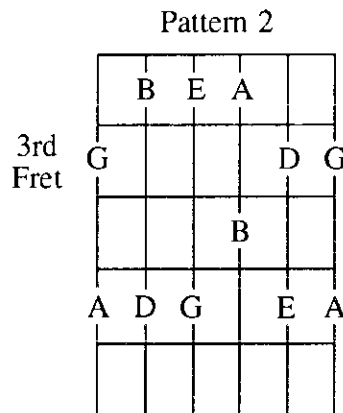
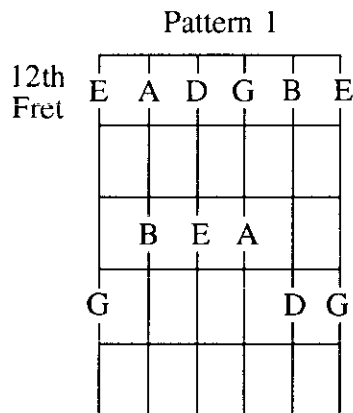


### Blues Patterns



**The Pentatonic Patterns.** Each of these five patterns begins with a different note of the pentatonic scale. If these patterns are played in the proper location, you could play in key anywhere on the fretboard just like you did with the modes. These diagrams show the pentatonic patterns in the key of E minor.

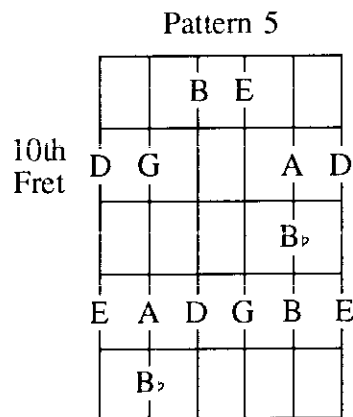
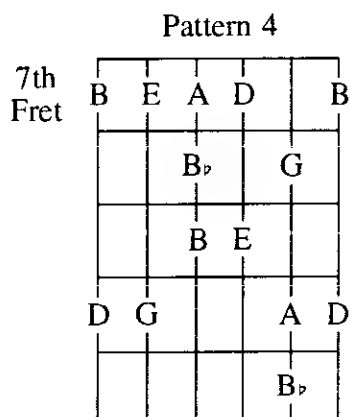
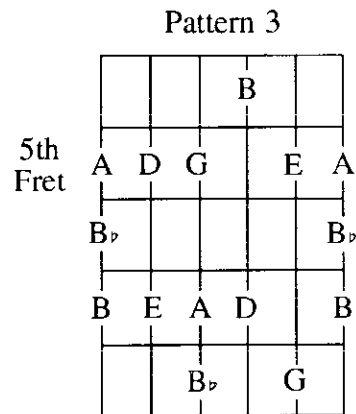
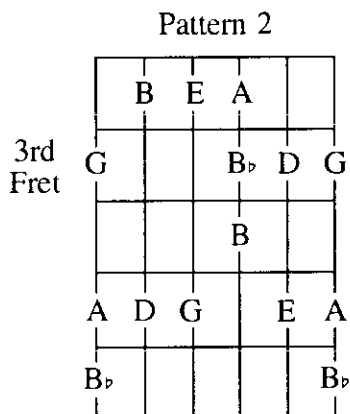
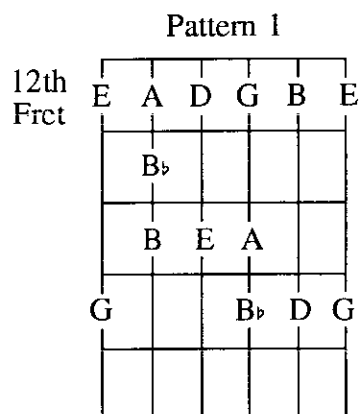
Pattern 1 E G A B D E  
 Pattern 2 G A B D E G  
 Pattern 3 A B D E G A  
 Pattern 4 B D E G A B  
 Pattern 5 D E G A B D



At this point, you should practice the patterns up and down the fretboard until you feel completely comfortable with them. We recommend that you stick with the key of E minor for a while. Try the other keys later. The exercises will be written in E minor also.

**The Blues Patterns.** Here are the five blues patterns in the key of E minor. Again, they are the same as the pentatonic patterns with a flat fifth note added to them. After you've memorized the location for each pattern, practice playing them up and down the fretboard.

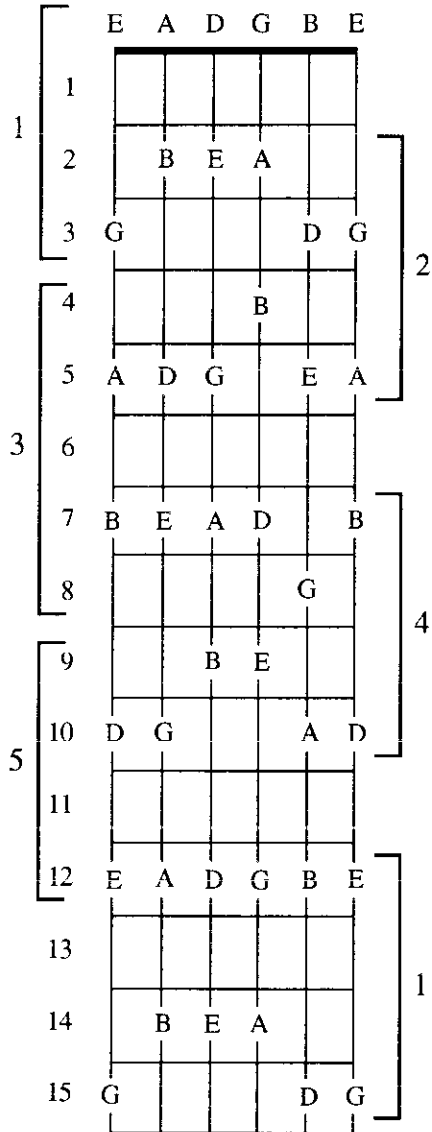
Pattern 1 E G A B $\flat$  B D E  
 Pattern 2 G A B $\flat$  B D E G  
 Pattern 3 A B $\flat$  B D E G A  
 Pattern 4 B D E G A B $\flat$  B  
 Pattern 5 D E G A B $\flat$  B D



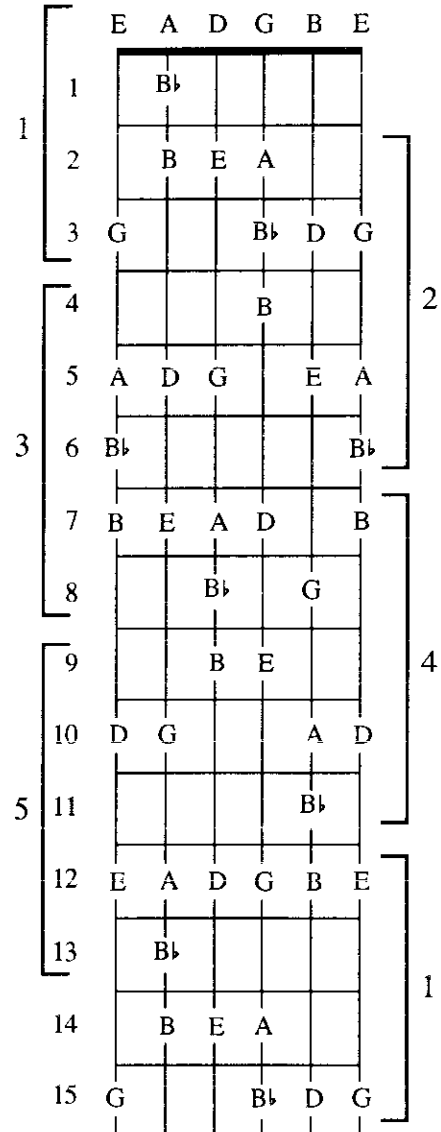
Note: Although there are six notes in the blues scale, only five patterns can be played. Try to create a pattern that begins with the flat fifth note. You'll end up with an already existing pattern.

**Linking the Patterns.** The pentatonic and blues patterns can be linked together just like the modes. On these diagrams you can see how the patterns are connected in the key of E minor. The numbers outside the brackets are pattern numbers. If you look between each bracket you will see the pattern indicated.

### ***Pentatonic***



### ***Blues***



## ***Pentatonic Exercises In E Minor***

---

The next ten exercises are for the pentatonic patterns. Try to play as many as you can with the blues scale also. The pattern numbers are written above the tablature.

### ***Pentatonic Exercise #1***

	P1	P2	P3	P4	P5	P1
1	<div style="position: absolute; top: 0; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 15px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 30px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 45px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 60px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 75px; left: 0; right: 0; height: 15px;"></div>					
2						
3						
4						
5						
6						
	0-3-3-5-5-7-7-10-10-12-12-15					

	P1	P5	P4	P3	P2	P1
1	<div style="position: absolute; top: 0; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 15px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 30px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 45px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 60px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 75px; left: 0; right: 0; height: 15px;"></div>					
2						
3						
4						
5						
6						
	14-12-12-10-10-7-7-5-5-2-2-0					

	P1	P2	P3	P4	P5	P1
1	<div style="position: absolute; top: 0; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 15px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 30px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 45px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 60px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 75px; left: 0; right: 0; height: 15px;"></div>					
2						
3						
4						
5						
6						
	0-2-2-5-5-7-7-9-9-12-12-14					

	P1	P5	P4	P3	P2	P1
1	<div style="position: absolute; top: 0; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 15px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 30px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 45px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 60px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 75px; left: 0; right: 0; height: 15px;"></div>					
2						
3						
4						
5						
6						
	14-12-12-9-9-7-7-4-4-2-2-0					

	P1	P2	P3	P4	P5	P1
1	<div style="position: absolute; top: 0; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 15px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 30px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 45px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 60px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 75px; left: 0; right: 0; height: 15px;"></div>					
2						
3						
4						
5						
6						
	0-3-3-5-5-8-8-10-10-12-12-15					

	P1	P5	P4	P3	P2	P1
1	<div style="position: absolute; top: 0; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 15px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 30px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 45px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 60px; left: 0; right: 0; height: 15px;"></div> <div style="position: absolute; top: 75px; left: 0; right: 0; height: 15px;"></div>					
2						
3						
4						
5						
6						
	15-12-12-10-10-7-7-5-5-3-3-0					

## Pentatonic Exercise #2

Pattern 1 sl. Pattern 2

1 0 3 *sl.* 5 3

2 0 3 5 3

3 0 2 4 2

4 0 2 5 2

5 0 2 5 2

6 0 3 5 3 *sl.*

Pattern 3 sl. Pattern 4

1 5 7 *sl.* 10 7

2 5 8 10 8

3 4 7 9 7

4 5 7 9 7

5 5 7 10 7

6 5 7 10 7 *sl.*

Pattern 5 sl. Pattern 1

1 10 12 *sl.* 15 12

2 10 12 15 12

3 9 12 14 12

4 9 12 14 12

5 10 12 14 12

6 10 12 15 12 *sl.*

Pattern 5 sl. Pattern 4

1 10 12 *sl.* 10 7

2 10 12 10 8

3 9 12 9 7

4 9 12 9 7

5 10 12 10 7

6 10 12 10 7 *sl.*

Pattern 3 sl. Pattern 2 Pattern 1

1 5 7 *sl.* 5 3

2 5 8 5 3

3 4 7 4 2

4 5 7 5 2

5 5 7 5 2

6 5 7 5 3 *sl.* 0 3



### ***Pentatonic Exercise #3***

### Patterns 1 and 2

[illegible]

### Patterns 2 and 3

1 3-5-5-7 7-5-5-3

2 3-5-5-8 8-5-5-3

3 2-4 4-7 7-4 4-2

4 2-5-5-7 7-5-5-2

5 2 5-5-7 7-5-5-2

6 3-5-5-7 7-5-5-3

### Patterns 3 and 4

1  
2  
3  
4  
5  
6

5-7-7-10 5-7-7-10 4-7-7-9 5-8-8-10 5-7-7-10 10-7-7-5 10-8-8-5 9-7-7-4 9-7-7-5 10-7-7-5 10-7-7-5

### Patterns 4 and 5

Number	Count
1	1012
2	998
3	1001
4	1000
5	999
6	1000

1 12-10-10-7

2 12-10-10-8

3 12-9-9-7

4 12-9-9-7

5 12-10-10-7

6 12-10-10-7

## Patterns 5 and 1

Figure 1 is a Gantt chart illustrating the execution of a program with 6 parallel processes. The chart shows the execution time for each process, represented by horizontal bars. The processes are labeled with their IDs (1-6) and their execution times (e.g., 10-12-12-15, 9-12-12-14). The chart shows that the processes are executed in parallel, with some overlapping and some sequential execution.

Process ID	Execution Time
1	10-12-12-15
2	10-12-12-15
3	9-12-12-14
4	10-12-12-14
5	10-12-12-15
6	10-12-12-15

1	15	12-12-10
2		15-12-12-10
3		14-12-12-9
4		14-12-12-9
5		14-12-12-10
6		15-12-12-10

## ***Pentatonic Exercise #4***

### Patterns 1, 2, 3, and 4

[illegible]

### Patterns 2, 3, 4, and 5

### Patterns 3, 4, 5, and 1

### Patterns 4, 5, 1, and 2

Diagram illustrating a sequence of squares arranged in two rows. The top row contains squares labeled 1-2, 2-3, 3-4, 4-5, and 5-6. The bottom row contains squares labeled 7-10, 10-12, 12-14, 12-15, 14-16, and 15-17. The squares are arranged in a staggered pattern, with the top row shifted to the right relative to the bottom row.

Diagram illustrating a sequence of numbers and their connections:

- 1 connects to 17, 15
- 2 connects to 17, 15
- 3 connects to 16, 14
- 4 connects to 15, 12
- 5 connects to 14, 12
- 6 connects to 12, 9

Additional connections between the numbers on the right:

- 17 connects to 15
- 15 connects to 12
- 16 connects to 14
- 14 connects to 12
- 12 connects to 9
- 9 connects to 7
- 12 connects to 10
- 10 connects to 7
- 10 connects to 7

### Patterns 5, 1, 2, and 3

	10-12	12-14	14-16	16-19	17-19
1					17-19
2				15-17	17-20
3		12-14	14-16	16-19	
4	9-12	12-14	14-17		
5	10-12	12-14			
6	10-12				

1	19-17
2	20-17
3	17-15
4	19-16
5	16-14
6	17-14
7	14-12
8	14-12
9	12-9
10	12-10

## ***Pentatonic Exercise #5***

Patterns 1 and 2

1 3-5 5-3

2 0-3 3-0

3 2-4 4-2

4 0-2 2-0

5 2-5 5-2

6 0-3 3-0

Patterns 2 and 3

1 5-7 7-5

2 3-5 5-3

3 4-7 7-4

4 2-5 5-2

5 5-7 7-5

6 3-5 5-3

Patterns 3 and 4

1 7-10 10-7

2 5-8 8-5

3 7-9 9-7

4 5-7 7-5

5 7-10 10-7

6 5-7 7-5

Patterns 4 and 5

1 10-12 12-10

2 8-10 10-8

3 9-12 12-9

4 7-9 9-7

5 10-12 12-10

6 7-10 10-7

Patterns 5 and 1

1 12-15 15-12

2 10-12 12-10

3 12-14 14-12

4 9-12 12-9

5 12-14 14-12

6 10-12 12-10

## Pentatonic Exercise #6

Patterns 1 and 2

1	
2	0-3-5-3 5-3-0-3
3	0-3-5-3 5-3-0-3
4	0-2-4-2 4-2-0-2
5	0-2-5-2 5-2-0-2
6	0-3-5-3 5-3-0-3

Patterns 2 and 3

1	3-5-7-5 7-5-3-7
2	3-5-8-5 8-5-3-5
3	2-4-7-4 7-4-2-4
4	2-5-7-5 7-5-2-5
5	2-5-7-5 7-5-2-5
6	3-5-7-5 7-5-3-5

Patterns 3 and 4

1	5-7-10-7 10-7-5-7
2	5-8-10-8 10-8-5-8
3	4-7-9-7 9-7-4-7
4	5-7-9-7 9-7-5-7
5	5-7-10-7 10-7-5-7
6	5-7-10-7 10-7-5-7

Patterns 4 and 5

1	7-10-12-10
2	8-10-12-10
3	7-9-12-9
4	7-9-12-9
5	7-10-12-10
6	7-10-12-10

1	12-10-7-10
2	12-10-8-10
3	12-9-7-9
4	12-9-7-9
5	12-10-7-10
6	12-10-7-10

Patterns 5 and 1

1	10-12-15-12
2	10-12-15-12
3	9-12-14-12
4	9-12-14-12
5	10-12-14-12
6	10-12-15-12

1	15-12-10-12
2	15-12-10-12
3	14-12-9-12
4	14-12-9-12
5	14-12-10-12
6	15-12-10-12

## ***Pentatonic Exercise #7***

	P1	P2	P3	P4	P5
1					
2					
3					
4					
5	0-2	2-5	5-7	7-10	10-12
6	0-3	3-5	5-7	7-10	10-12

	P5	P4	P3	P2	P1
1					
2					
3					
4	12-9	9-7	7-5	5-2	2-0
5	12-10	10-7	7-5	5-2	2-0
6					

	P1	P2	P3	P4	P5
1					
2					
3	0-2	2-4	4-7	7-9	9-12
4	0-2	2-5	5-7	7-9	9-12
5					
6					

	P5	P4	P3	P2	P1
1					
2	12-10	10-8	8-5	5-3	3-0
3	12-9	9-7	7-4	4-2	2-0
4					
5					
6					

	P1	P2	P3	P4	P5
1	0-3	3-5	5-7	7-10	10-12
2	0-3	3-5	5-8	8-10	10-12
3					
4					
5					
6					

## ***Pentatonic Exercise #8***

	P1	P2	P3	P4	P5
1					
2					
3					
4					
5	0-2	5-2	5-7	10-7	10-12
6	0-3	5-3	5-7	10-7	10-12

	P5	P4	P3	P2	P1
1					
2					
3					
4	12-9	7-9	7-5	2-5	2-0
5	12-10	7-10	7-5	2-5	2-0
6					

	P1	P2	P3	P4	P5
1					
2					
3	0-2	4-2	4-7	9-7	9-12
4	0-2	5-2	5-7	9-7	9-12
5					
6					

	P5	P4	P3	P2	P1
1					
2	12-10	8-10	8-5	3-5	3-0
3	12-9	7-9	7-4	2-4	2-0
4					
5					
6					

	P1	P2	P3	P4	P5
1	0-3	5-3	5-7	10-7	10-12
2	0-3	5-3	5-8	10-8	10-12
3					
4					
5					
6					

## ***Pentatonic Exercise #9***

### Patterns 1, 2, 3, 4, and 5

Year	1	2	3	4	5	6
1	10	8	7	5	3	0
2	12	10	8	6	4	2
3	10	12	10	8	6	4
4	12	10	8	6	4	2
5	10	8	6	4	2	0
6	12	10	8	6	4	2
7	10	8	6	4	2	0
8	12	10	8	6	4	2
9	10	8	6	4	2	0
10	12	10	8	6	4	2

Patterns 2, 3, 4, 5, and 1

1  
2  
3  
4  
5  
6

12-15 15-12  
10-12 12-15 15-12 12-10  
7 9 9-12 12-9 9-7  
2-5 5-7 7-9 9-7 7-5  
3-5 7-5 5-2 5-3

Patterns 3, 4, 5, 1, and 2

1  
2  
3  
4  
5  
6

15-17 17-15  
17-15 15-12  
14-12 12-9  
12-9 9-7  
10-7 7-5  
7-5

5-7 7-10

### Patterns 4, 5, 1, 2 and 3

1  
2  
3  
4  
5  
6

7-10 7-10 10-12 9-12 12-14 12-14 14-16 15 17 17-20 17-19

19-17 20-17 17-15 16-14 14-12 14-12 12-9 12-10 10-7 10-7

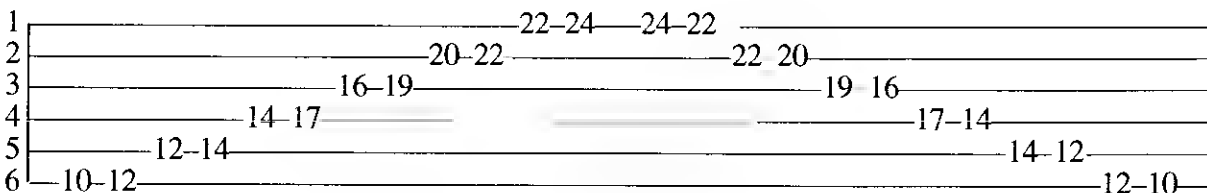
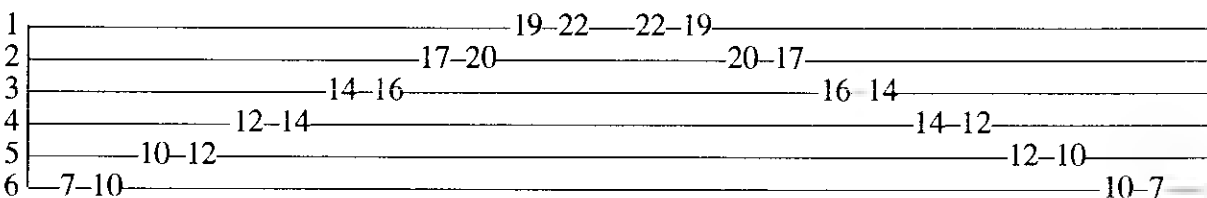
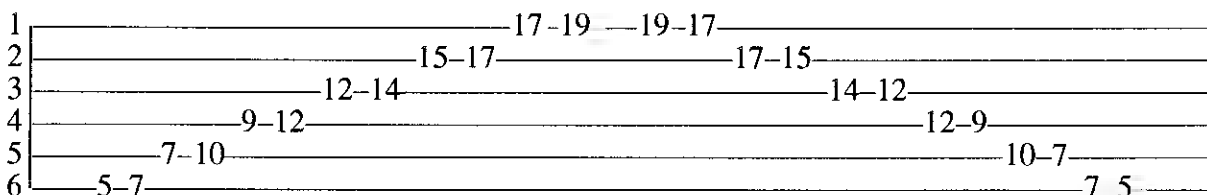
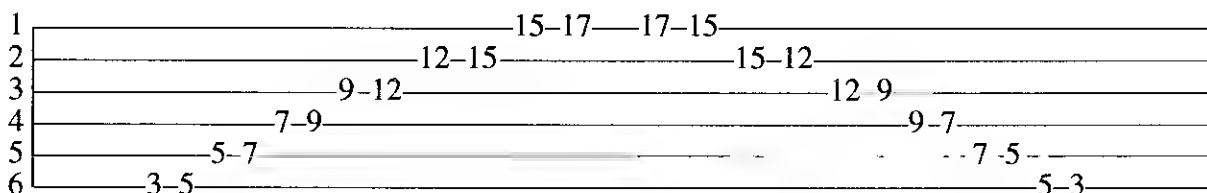
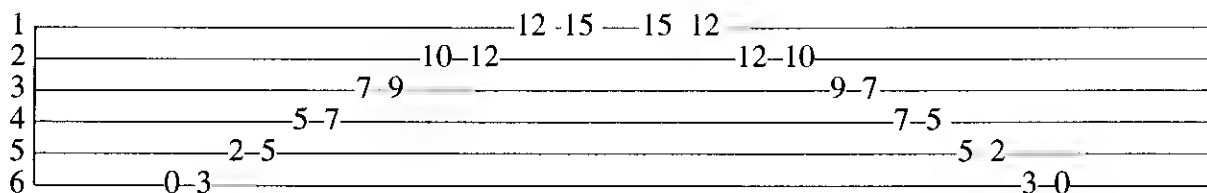
### Patterns 5, 1, 2, 3, and 4

1 19 22  
 2 17-20 20-22  
 3 14-16 16-19  
 4 12-14 14-17  
 5 10-12 12-14  
 6 10-12

1 22-19  
2 22-20 20-17  
3 19-16 16-14  
4 17 14 14-12  
5 14-12 12-10  
6 12-10

Begin this exercise by playing the first string of pattern one. When you move to the next string, move to the next pattern also. You will be playing a wide range of frets. Play as far up the fretboard as you can.

## ***Pentatonic Exercise #10***



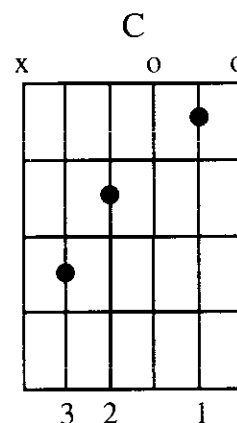


## Chapter 9

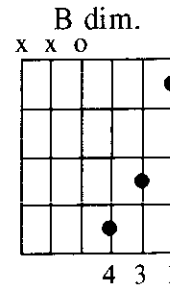
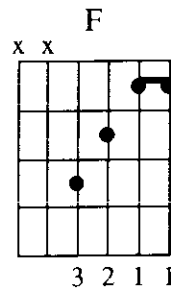
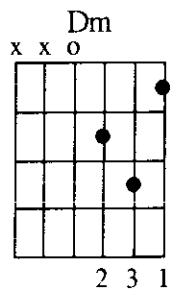
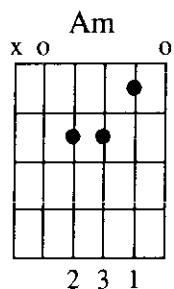
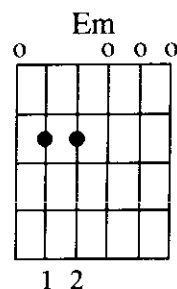
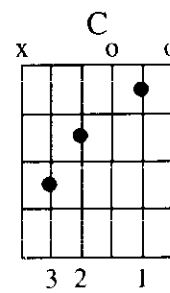
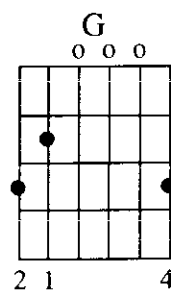
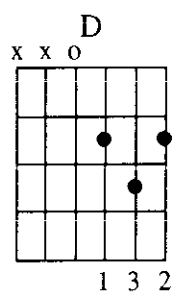
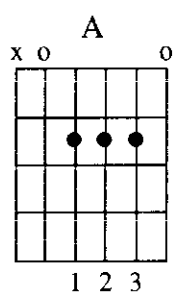
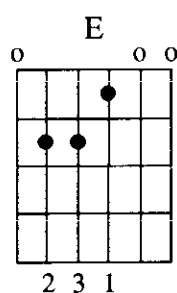
### Chords

In this chapter you will learn how to play major, minor, and diminished chords. You will also learn how chord progressions work using these three chord types. Then you can play the chord progression exercises found at the end of this chapter.

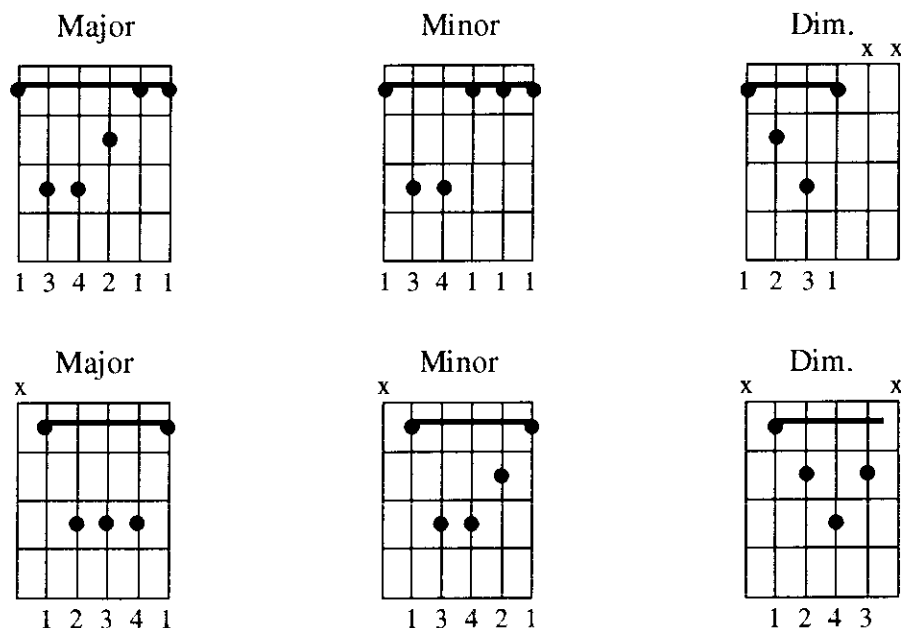
It's important to understand how to use the chord diagrams before you can continue reading this chapter. The diagram on the right shows a C major chord in the open position. When the chord name is shown by itself, the chord is major. Minor chords will be identified by the small letter "m." Diminished is shown by the abbreviation "dim." You may see the letter "x" or "o" above the strings. An "x" indicates that you don't play that string. An "o" means that the string is played open. The dots on the diagram show where to place your fingers. The numbers at the bottom show the correct fingering for the chord.



**Open Position Chords.** This type of chord is played on the first few frets of the guitar, and open strings are often used. Practice the following open position chords until you feel comfortable with them.



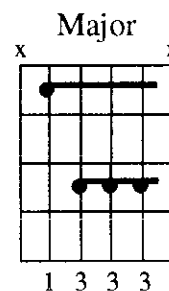
**Barre Chords.** To play a Barre chord, lay your first finger across the strings. This will allow you to play many notes with one finger. The Barre is shown on the diagrams by a thick line. These chords can be moved to any fret on the guitar. Using the diagrams shown here, you could play many major, minor, and diminished chords. Begin by practicing each chord on the first fret.



The note that names a chord is called “The root.” On the top three diagrams the root is the note on the sixth string. On the bottom diagrams the root is on the fifth string. If you were to play the chord in the upper left on the third fret, you would be playing a G major chord because the note on the third fret, sixth string is a “G.” If you were to move the chord up one fret, you would be playing a G# major chord. Move it up again and it becomes an A major chord, etc.

Play the fifth string diminished chord on the seventh fret. What chord are you playing? The answer is E diminished because the note on the fifth string is an “E” and you are using a diminished chord shape. If you were to move it up one fret, it would become an F diminished chord. Once again, any of the chords shown above can be moved to any fret on the guitar.

Many guitarists have trouble playing the fifth string major Barre chord. Squeezing three fingers onto one fret can be very difficult. One way around this problem would be to lay your third finger across the strings as shown on the diagram. Either method of playing this chord is acceptable.



**Chord Progressions.** When a group of chords are put together they form a chord progression. Our progressions will contain three types of chords, major, minor, and diminished. With these three chord types, you will be able to create a wide variety of chord progressions.

Chord progressions can be written in either major or minor keys, just like scales. You may want to refer back to the scale reference sheet on page 71 when reading this section. Let's begin by looking at some major chord progressions. The two progressions shown below have something in common, the order of the chord types is exactly the same. The first chord is major, the second is minor, the third is minor, etc. This order will be the same for all major keys.

### ***C Major***

C major   D minor   E minor   F major   G major   A minor   B diminished   C major

### ***G Major***

G major   A minor   B minor   C major   D major   E minor   F# diminished   G major

If you were to make a progression in a minor key, the chord types would be in a different order. You can see the order in the progressions shown below. After you memorize the order of chord types for both major and minor keys, you should be able to create progressions in any key.

### ***A Minor***

A minor   B diminished   C major   D minor   E minor   F major   G major   A minor

### ***E Minor***

E minor   F# diminished   G major   A minor   B minor   C major   D major   E minor

Play the four progressions listed above in the order that the chords are shown. Notice that they have a smooth flowing sound. If you examine each note in the chords you will see that they are all in key throughout the entire progression. Here is a simple progression in the key of C major. Check each note in the chords as you play them.

***Am   G   F   C***

Why couldn't this progression be in the key of A minor? Although C major and A minor contain the same chords, their progressions will have different sounds. A C major progression will end with a C major chord, and an A minor progression will end with an A minor chord. This is true for all relative keys.

**Chord Construction By Key.** Let's take your knowledge of chord progressions a little further by explaining exactly where these major, minor, and diminished chords come from. Begin by playing a C major chord on your guitar. Notice that you are really only playing three different notes, C, E, and G. Now look at the notes in the C major scale.

C	D	E	F	G	A	B	C
1	2	3	4	5	6	7	1

C, E, and G are the first, third, and fifth notes of the scale. The next chord in the C major progression is a D minor chord. Check the notes on your guitar. A D minor chord is made up of the notes D, F, and A. The next chord is E minor, E, G, and B. Then F major, F, A, and C. Do you see a common pattern forming here? You're playing every other note in the scale to form each chord.

### ***C Major***

C major	D minor	E minor	F major	G major	A minor	B dim.	C major
G	A	B	C	D	E	F	G
E	F	G	A	B	C	D	E
C	D	E	F	G	A	B	C

Make sure that you understand this method of chord construction by figuring out what notes make up the chords in the key of G major. Try to figure them out without looking at the notes on the guitar or the chart below.

### ***G Major***

G major	A minor	B minor	C major	D major	E minor	F# dim.	G major
D	E	F#	G	A	B	C	D
B	C	D	E	F#	G	A	B
G	A	B	C	D	E	F#	G

When constructing chords in a minor key, use the exact same method. The keys of A minor and E minor are relative to C major and G major. Therefore, the chords will appear in a different order, but they will be spelled the same.

### ***A Minor***

A minor	B dim.	C major	D minor	E minor	F major	G major	A minor
E	F	G	A	B	C	D	E
C	D	E	F	G	A	B	C
A	B	C	D	E	F	G	A

### ***E Minor***

E minor	F# dim.	G major	A minor	B minor	C major	D major	E minor
B	C	D	E	F#	G	A	B
G	A	B	C	D	E	F#	G
E	F#	G	A	B	C	D	E

# ***C Major and A Minor Chord Reference Sheet***

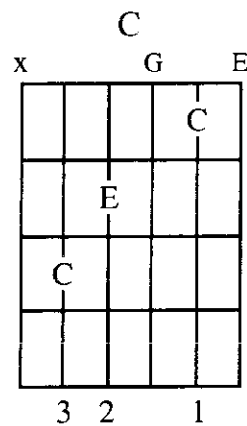
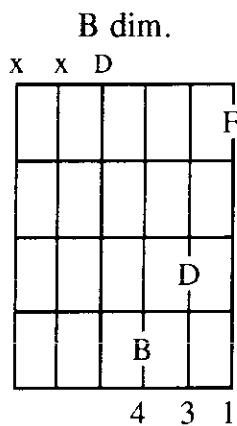
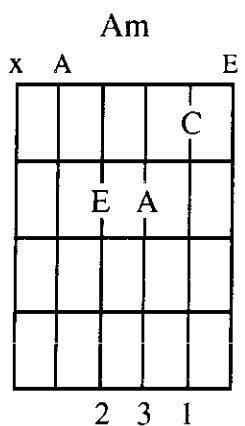
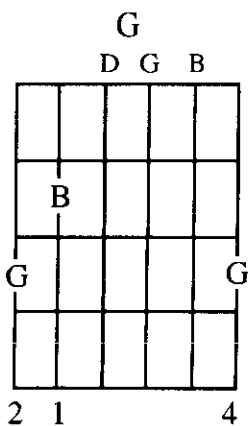
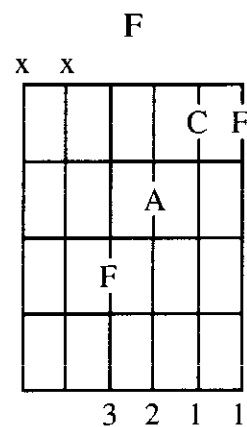
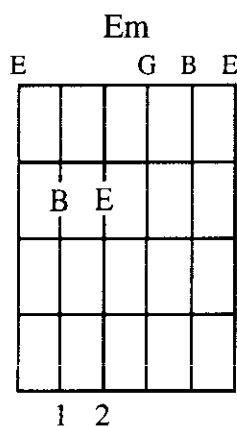
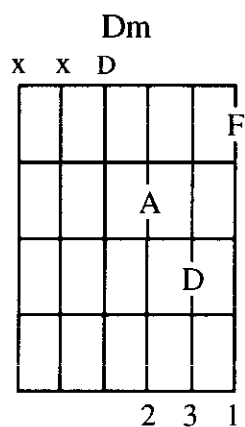
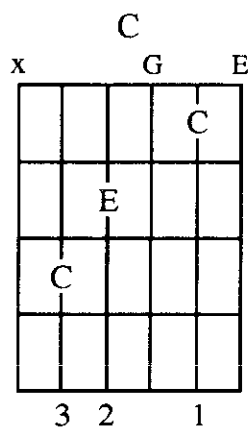
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## ***C Major***

C major	D minor	E minor	F major	G major	A minor	B dim.	C major
G	A	B	C	D	E	F	G
E	F	G	A	B	C	D	E
C	D	E	F	G	A	B	C

## ***A Minor***

A minor	B dim.	C major	D minor	E minor	F major	G major	A minor
E	F	G	A	B	C	D	E
C	D	E	F	G	A	B	C
A	B	C	D	E	F	G	A



# ***G Major and E Minor Chord Reference Sheet***

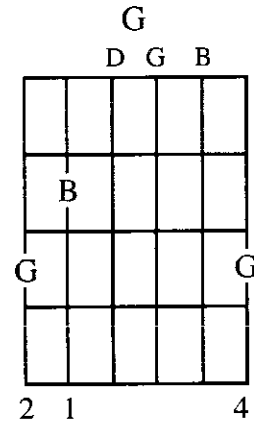
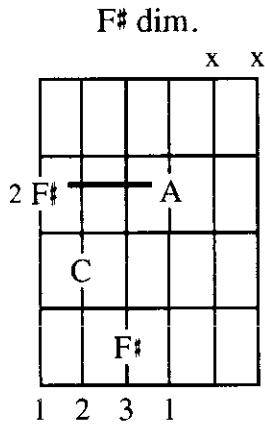
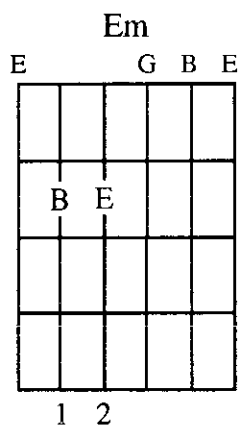
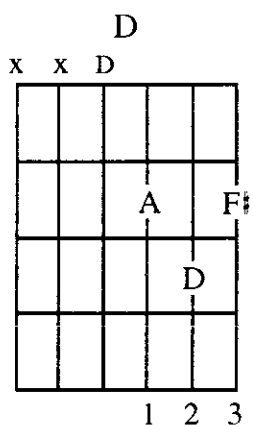
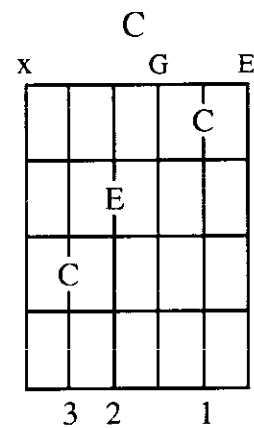
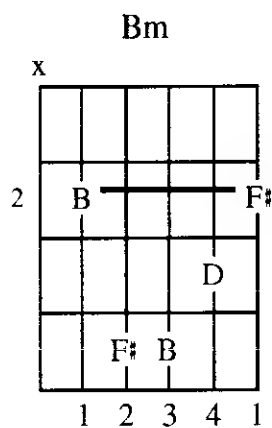
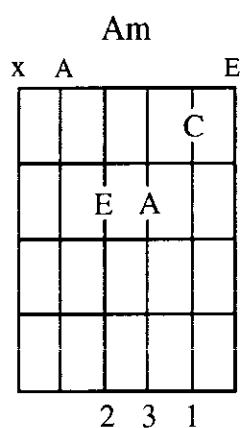
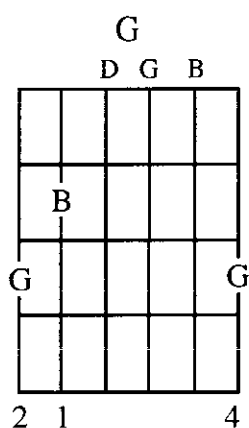
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## ***G Major***

G major	A minor	B minor	C major	D major	E minor	F# dim.	G major
D	E	F#	G	A	B	C	D
B	C	D	E	F#	G	A	B
G	A	B	C	D	E	F#	G

## ***E Minor***

E minor	F# dim.	G major	A minor	B minor	C major	D major	E minor
B	C	D	E	F#	G	A	B
G	A	B	C	D	E	F#	G
E	F#	G	A	B	C	D	E



# ***F Major and D Minor Chord Reference Sheet***

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## ***F Major***

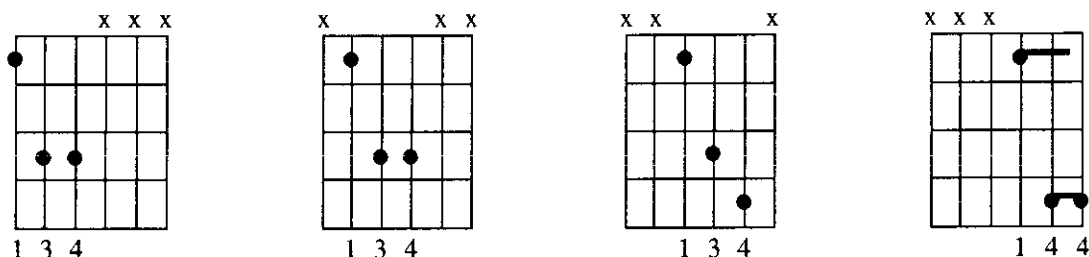
F major	G minor	A minor	B $\flat$ major	C major	D minor	E dim.	F major
C	D	E	F	G	A	B $\flat$	C
A	B $\flat$	C	D	E	F	G	A
F	G	A	B $\flat$	C	D	E	F

## ***D Minor***

D minor	E dim.	F major	G minor	A minor	B $\flat$ major	C major	D minor
A	B $\flat$	C	D	E	F	G	A
F	G	A	B $\flat$	C	D	E	F
D	E	F	G	A	B $\flat$	C	D

<p><b>F</b></p> <p>1 3 4 2 1 1</p>	<p><b>Gm</b></p> <p>1 3 4 1 1 1</p>	<p><b>Am</b></p> <p>1 3 4 1 1 1</p>	<p><b>B<math>\flat</math></b></p> <p>1 2 3 4 1</p>
<p><b>C</b></p> <p>1 2 3 4 1</p>	<p><b>Dm</b></p> <p>1 3 4 2 1</p>	<p><b>E dim.</b></p> <p>1 2 4 3</p>	<p><b>F</b></p> <p>1 3 4 2 1 1</p>

**Power Chords.** Technically, power chords are not really chords at all. A chord must contain at least three different notes. If you look at the notes in any power chord you'll see that there are really only two different notes. These chords are movable just like the Barre chords. The root will always be the lowest note in the chord. Power chords are often referred to as fifths. So, if the root of the chord is an "A" the chord would be called an A5. Each of these diagrams show a power chord with the root note on a different string. Practice playing each chord on the first fret, then move the chords around the fretboard until you feel comfortable playing them.



Since power chords do not contain three different notes, they can have either a major or minor sound, depending on where they are used in a progression. Try substituting a power chord in place of a major or minor chord in any progression. It should sound okay. Play a major or minor Barre chord and look at the lowest three notes. They are exactly the same as a power chord. To summarize, a power chord is just a simpler form of a major or minor chord. Play both progressions shown below to compare the sound.

**C G Dm C**

**C G5 D5 C**

**Palm Muting.** This is a very popular technique used by many rock guitarists. By resting the side of your picking hand gently against the strings, a muted sound is created. When doing this, the hand is usually placed very close to the bridge. The muted notes add an additional sound between chords. This is a great way to spice up your music when using power chords.

Here is an example of palm muting with power chords. Open strings are used for this example, but fretted notes can also be used for muting. "P.M." indicates palm muting on the tablature.

	E5	D5	C5	A5
1				
2				
3	9	7	5	2
4	9	7	5	2
5	0 0 0 0 7	0 0 0 0 5	0 0 0 0 3	0
6				
	P.M. -----	P.M. -----	P.M. -----	



**Theory Quiz II.** Test your knowledge of chords and chord progressions before you go on to the exercises. The answers are written upside down at the bottom of the page.

1. What would the chord spelling be for a B major chord?
2. A G major Barre chord could be played on the third fret or the \_\_\_\_ fret?
3. True or False? In a D major progression, the C# chord will be diminished?
4. What notes would be in an F5 chord?
5. List four positions where an F#5 chord could be played below the twelfth fret.
6. List all of the minor chords in the key of G major.
7. True or False? The notes in an E minor Barre chord are different than the notes in an open position E minor chord.
8. What notes are in a C# major chord?
9. True or False? An A major chord would be spelled, A, C, E.
10. In the key of A major, would the G# chord be major, minor, or diminished?
11. True or False? Power chords will always have a minor sound.
12. What diminished chord could be played in the key of E major?
13. Could a D major chord be played in the key of A minor?
14. True or False? An F major chord could be played with the root on the 1st, 3rd, or 8th fret.
15. List all of the major chords in the key of F# major.

(1) B, D#, F#. (2) 10th. (3) True. (4) F and C. (5) 2nd, 4th, 9th, or 11th fret. (6) A, B, and E minor. (7) False. (8) C#, E#, G# (9) False. (10) Diminished. (11) False. (12) D# diminished. (13) No. (14) True. (15) F#, B, and C# major

# Chord Progression Exercises

The twenty-two exercises in this chapter were created by randomly playing chords in the same key. The first twelve exercises use major, minor and diminished chords, and the last ten use power chords. They are written in a way that they can be arpeggiated or strummed. When a chord is arpeggiated, the notes are played separately. On the tablature below, the diminished chord is arpeggiated and the C major chord is strummed.

	B dim.	C
1	1	0
2	3 3	1
3	4 4	0
4	0	2
5		3
6		

When playing arpeggiated chords, let each note ring out. This means, when you play a note, let the previous one sound until it fades out naturally. After playing the exercises as written, strum the chords instead of arpeggiating them. The chord names are written above the tablature. Strum them as many times as you like using your own rhythm.

The power chord exercises are a little different. Play them exactly as shown on the tablature. There will be some strumming and some arpeggiating. Also, palm muting is used between the power chords.

## Chord Progression #1

	G	C	D	G
1	3		2	3
2	0 0	1	3 3	0
3	0 0	0 0	2 2	0
4		2 2	0	0
5		3		2
6	3			3

## Chord Progression #2

	Dm	Am	C	Dm
1	1			1
2	3	1	1	3
3	2 2	2	0	2
4	0	2 2	2 2	0
5		0	3	
6				

### Chord Progression #3

	Em	G	C	D	Em
1	0	3	0	2	0
2	0	0	1	3	0
3	0	0	0	2	0
4	2	0	2	0	2
5		0	3	0	2
6	0	3			0

### Chord Progression #4

	C	F	Am	B dim.	C
1	0	1	0	1	0
2	1	1	1	3	1
3	0	2	2	4	0
4	2	3	2	0	2
5	3	3	0	0	3
6					

### Chord Progression #5

	A	D	E	D	A
1	0	2		2	0
2	2	3	0	3	2
3	2	2	1	2	2
4	2	0	2	0	2
5	0		2		0
6			0		

### Chord Progression #6

	D	G	Em	A	D
1	2	3	0	0	2
2	3	0	0	2	3
3	2	0	0	2	2
4	0	0	2	2	0
5		2	2	0	
6		3	0		

### Chord Progression #7

	Am	Dm	G	F	Am
1	0	1	3	1	0
2	1	3	0	1	1
3	2	2	0	2	2
4	2	0	0	3	2
5	0		2		0
6			3		

## Chord Progression #8

	Fm	Cm	A <sup>+</sup>	B <sup>+</sup> m	Fm
1	1	3	4	1	1
2	1	4	4	2	1
3	1	5	5	3	1
4	3	5	6	3	3
5	3	3	6	1	3
6	1		4		1

## Chord Progression #9

	E	C#m	B	A	E
1		4		5	
2	9	5	4	5	9
3	9	6	4	6	9
4	9	6	4	7	9
5	7	4	2	7	7
6		4	2	5	

## Chord Progression #10

	C#	G#	F#	A#m	C#
1	9	4	2	6	9
2	9	4	2	6	9
3	10	5	3	6	10
4	11	6	4	8	11
5	11	6	4	8	11
6	9	4	2	6	9

## Chord Progression #11

	F	C	Gm	E dim.	F
1	1		3		1
2	1	5	3	8	1
3	2	5	3	9	2
4	3	5	5	8	3
5	3	3	5	7	3
6	1		3		1

## Chord Progression #12

	Gm	A dim.	F	Cm	Gm
1	3		1		3
2	3		1	4	3
3	3	5	2	5	3
4	5	7	3	5	5
5	5	6	3	3	5
6	3	5	1		3

### Chord Progression #13

	D5	E5	C5	B5	G5	E5
1						
2						
3	7	9	5	4		
4	7	9	5	4	5	2
5	5	7	3	2	5	2
6	0 0	0 0	0 0	0 0	0 0 3	0
	P.M.	P.M.	P.M.	P.M.	P.M.	

### Chord Progression #14

	A5	F5	G5	F5	E5	A5
1						
2	10	6	8	6	5	
3	9	5	7	5	4	2
4	7	3	5	3	2	2
5	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0
6						
	P.M. ---	P.M. ---	P.M. ---	P.M. ---	P.M. ---	

### Chord Progression #15

	D5	A5	Bb5	C5	A5	D5
1						
2	10	5	6	8	5	
3	10	5	6	8	5	3
4	7	2	3	5	2	2
5	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0
6						
	P.M. -	P.M. -	P.M. -	P.M. -	P.M. -	

### Chord Progression #16

	A5	G5	A5	F5	A5
1					
2	10		10	6	
3	9		9	5	
4	7	5	7	3	7
5	0 0 0 0	0 0 0 0 5	0 0 0 0	0 0 0 0	7
6		3			5
	P.M. ---	P.M. ---	P.M. ---	P.M. ---	

### Chord Progression #17

	E5	F5	D5	C5	A5
1			10		
2		6	10		
3	9	5	7	5	2
4	9	3	0 0	5	2
5	7	0 0		3	0
6	0 0			0 0	
	P.M.	P.M.	P.M.	P.M.	

## Chord Progression #18

	B5	F#5	G5	A5	F#5	B5
1						
2						
3						4
4	9	4	5	7	4	4
5	9	4	5	7	4	2
6	7-7-7-7	2-2 2 2	3 3-3-3	5 5-5-5	2	
	P.M. ---	P.M. ---	P.M. ---	P.M. ---		

## Chord Progression #19

	A5	C5	E5	B5	A5
1					
2			5		
3		5	4	4	2
4	7	5	2-2-2	4	2
5	7	3-3-3		2-2-2	0
6	5-5-5				
	P.M. -	P.M. -	P.M. -	P.M. -	

## Chord Progression #20

	A5	D5	F5	G5	A5
1					
2			6	8	
3		7	5	7	
4	7	7	3	5	7
5	7	5			7
6	5				5
	P.M. -----				

## Chord Progression #21

	F5	C5	Eb5	A#5	F5
1				4	
2			4	4	
3		5	3	1	
4	3	5	1		3
5	3	3			3
6	1				1
	P.M. -----				

## Chord Progression #22

	E5	G5	D5	A5	E5
1					
2					
3	9		7		
4	9	5	7	7	2
5	7	5	5	7	2
6	0	0-0-3	0	0-0-5	0
	P.M. -----		P.M. -----		

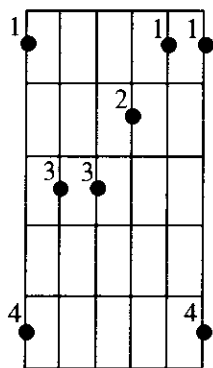
# Chapter 10

## Arpeggios

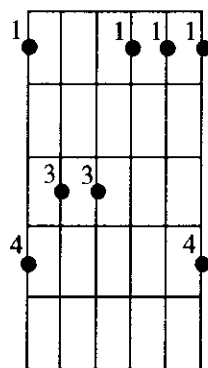
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The arpeggios in this chapter are patterns created from chord tones. In a way, scales and chords are combined here. The patterns shown below resemble scales, but they only contain notes taken from chords. You will be using three types of arpeggios, major, minor, and diminished, just like the chords. There are two different versions of each one. One begins on the sixth string, and the other begins on the fifth. Play each arpeggio as if it were a scale. Start with the lowest note and play all the way across the fretboard. When you reach the last note, play in reverse back to the beginning. Be sure to use the correct fingers. The finger numbers have been included to help you. Practice playing the arpeggios on different frets all over the guitar.

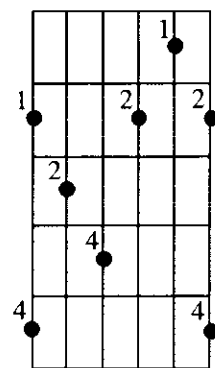
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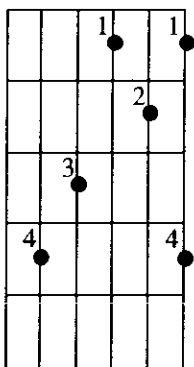
Minor



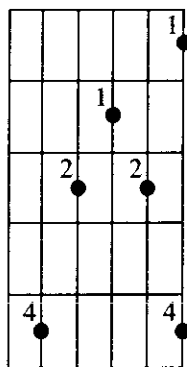
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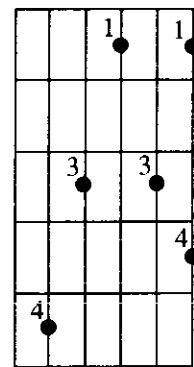
Major



Minor

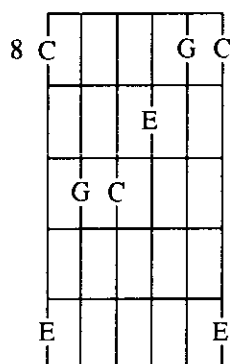


Diminished

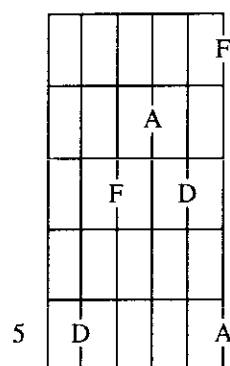


**Arpeggio Progressions.** The arpeggios used in this book contain the same notes as the chords you learned earlier. Therefore, an arpeggio progression can be created exactly like a chord progression. In the example below you can see all of the arpeggios in a C major progression. Notice that the notes in them are exactly the same as the chords. Also, the lowest note in each arpeggio is the root.

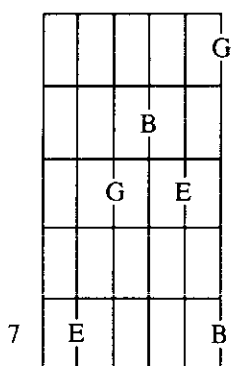
C Major



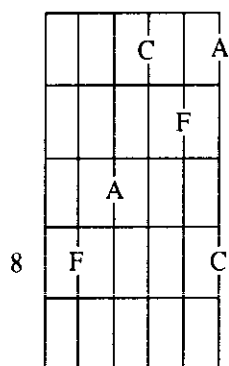
D Minor



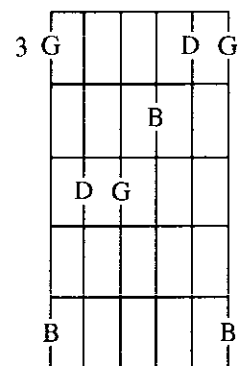
E Minor



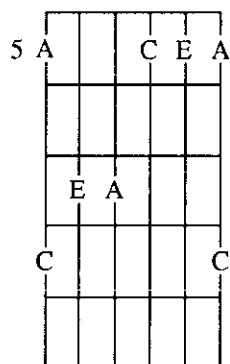
F Major



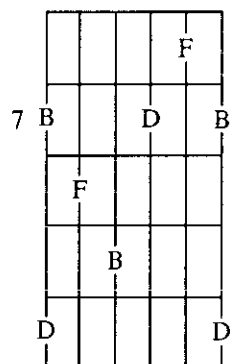
G Major



A Minor



B Diminished





# Arpeggio Exercises and Progressions

Each of the next thirteen progressions is made up of portions of arpeggios. The arpeggio names are written above the tablature. These could be used as new chord progressions also. After playing the arpeggios, play each progression as a chord progression. Strum the chords using your own rhythm.

After you have played each progression, there are four exercises for each individual arpeggio. Be aware that there are a few fingering changes on these exercises. It's okay to substitute fingers on certain notes to make the exercise easier to play.

## Arpeggio Progression #1

	Am	G	F	Am
1	5-8-5	3-7-3	1-5 1	0
2	5-5	3-3	1-1	1
3	5-5	4-4	2-2	2
4				2
5				0
6				

## Arpeggio Progression #2

	Em	Am	G	F# dim.	Em
1					0
2					0
3					0
4					2
5	2	7	5	3	2
6	0-3	5-8	3-7	2 5	0

## Arpeggio Progression #3

	D	Em	Fm	G	D
1		7-3		10-7	
2	3	5	7	8	7
3	2	4	6	7	7
4	4		7		7
5	5		9		5
6					

### Arpeggio Progression #4

	Dm	Gm	F	C	Dm
1	1-5	3-6	5-8	8-12	10
2	3	3	6	8	10
3	2	3	5	9	10
4					12
5					12
6					10

### Arpeggio Progression #5

	Gm	A dim	E $\flat$	F	Gm
1					3
2			4	6	3
3			3	5	3
4	5	7	5	7	5
5	5	6	6	8	5
6	3-6	5-8			3

### Arpeggio Progression #6

	C#	F#	G#	E#m	C#
1					9
2	2	7	9	6	9
3	1	6	8	5	10
4	3	8	10	6	11
5	4	9	11	8	11
6					9

### Arpeggio Progression #7

	C	G	Am	B dim.	C				
1	12-8	8	7-3	3	8-5	5	10-7	7	8
2	8	8	3	3	5	5	6	6	8
3	9		4		5		7		9
4									10
5									10
6									8

### Arpeggio Progression #8

	G	F# dim.	Em	D	
1	7-10-7	8 5	3-7-3	5-2	
2	8	7	5	5	3
3	7	5	4	4	2
4	9		5		0
5	10		7		
6					

## Arpeggio Progression #9

	Fm	A $\flat$	B $\flat$ m	G dim.	Fm
1	8 4		6	6	1
2	6 6		6	8 8	1
3	5 5	5	6	6 6	1
4	6	6 6	8 8	8 8	3
5	8	6 6	8	10	3
6		4 8 8	6 9		1

## Arpeggio Progression #10

	B $\flat$	Cm	A dim.	E $\flat$	B $\flat$
1	6 6 10 6	8 8 11 8	5 5 8 5	3 3 6 3	6
2	6 6 6	8 8 8	4 4 4	4 4 4	6
3	7	8	5	3	7
4					8
5					8
6					6

## Arpeggio Progression #11

	Bm	G	D	Em
1			3	5
2			2 2 2	4 4 4
3			4 4 4	5 5 5
4	9	5	5	7
5	9 9 9	5 5 5	5	
6	7 10 10 10	3 7 7 7		

## Arpeggio Progression #12

	A	Bm	F $\sharp$ m	G $\sharp$ dim.
1	12 9	7 10 7	9 5	7 10 7
2	10 10 10	7 7 7	7 7 7	9 9
3	9 9	7 7	6 6	7
4		9		9
5				11
6				

## Arpeggio Progression #13

	E	G $\sharp$ m	F $\sharp$ m	D $\sharp$ dim.	E
1	4 4 7	11 7 7	5 5 9	5 2 2	0
2	5 5 5	9 9 9	7 7 7	4 4 4	0
3	4 4 4	8 8 8	6 6 6	2 2 2	1
4	6 6	9 9	7 7	4 4	2
5	7	11 9			6
6					0

## ***Minor Arpeggio Exercise #1***

1  
2  
3  
4  
5  
6

## ***Minor Arpeggio Exercise #2***

1  
2  
3  
4  
5  
6

## ***Minor Arpeggio Exercise #3***

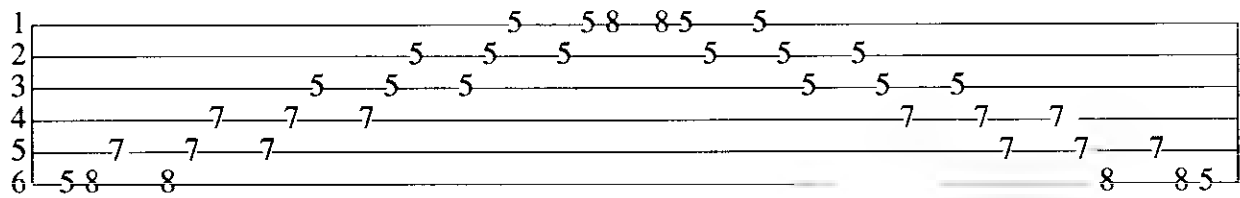
1  
2  
3  
4  
5  
6

## ***Minor Arpeggio Exercise #4***

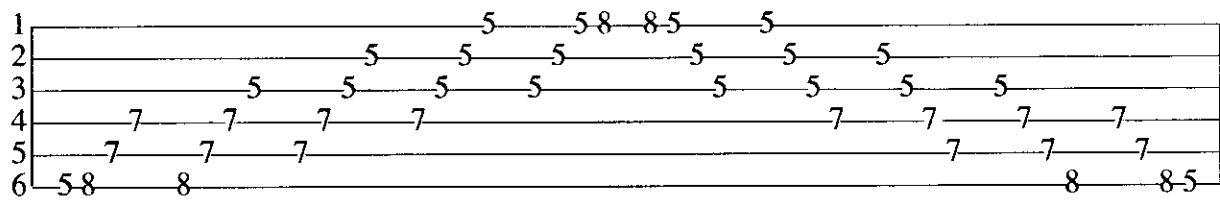
1  
2  
3  
4  
5  
6

1  
2  
3  
4  
5  
6

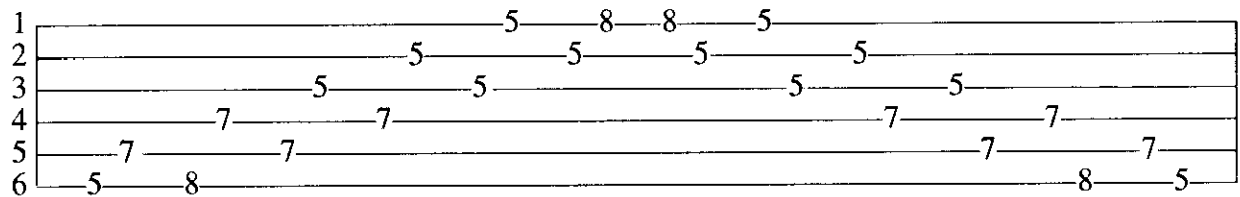
### Minor Arpeggio Exercise #5



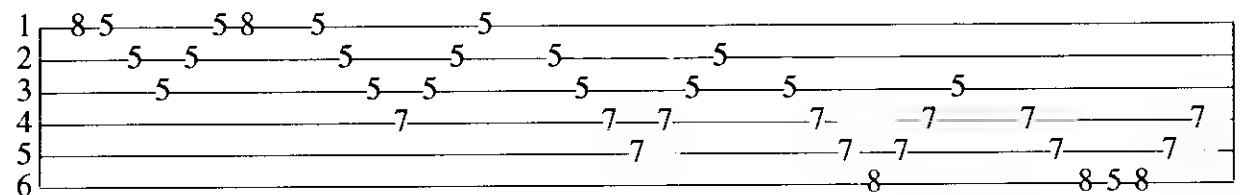
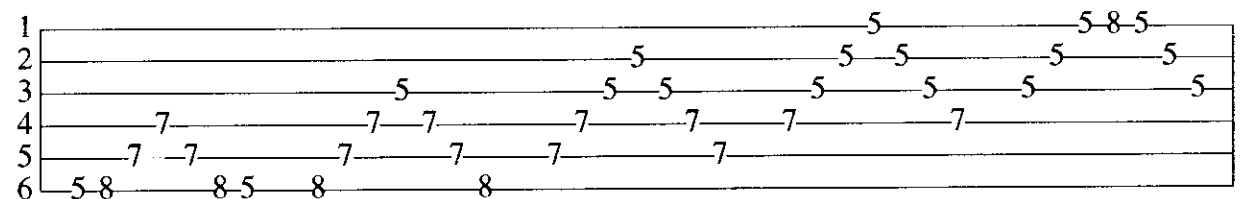
### Minor Arpeggio Exercise #6



### Minor Arpeggio Exercise #7



### Minor Arpeggio Exercise #8



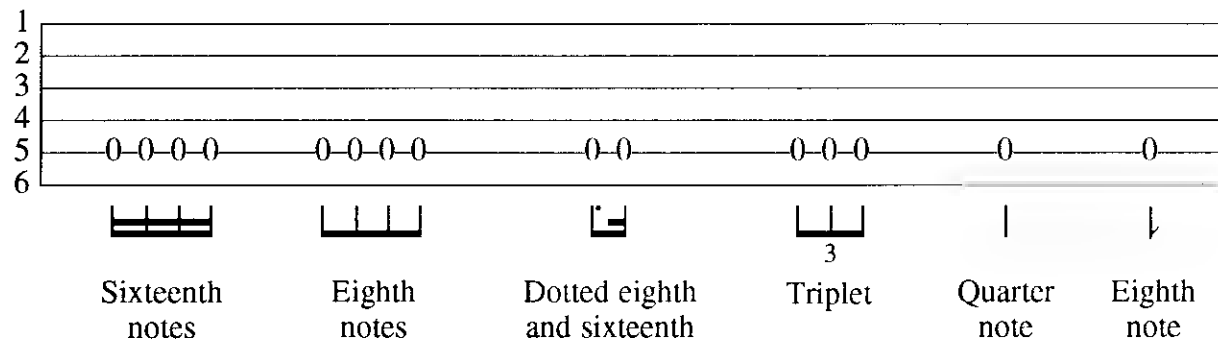


# Chapter 11

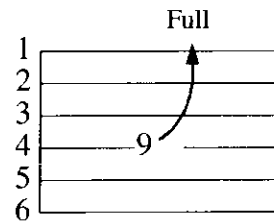
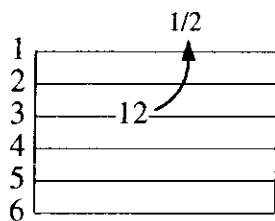
## Riffs

The music in this chapter uses bits and pieces of exercises to form riffs. There are two riffs for each mode and blues pattern. So far, all of the exercises had a straight rhythm. In order to give the riffs a musical sound, the rhythm had to be changed on some of them. For those of you that know how to read music, you will see that the rhythm is written much like it would be on normal sheet music. Each riff is written in 4/4 time and they are all two measures long. If you cannot read music, use a steady, even rhythm, or create your own rhythm for each riff.

Here is an example of how the rhythm will look on the tablature. As you can see, the rhythm patterns are directly below the numbers on the tablature lines. This makes reading very easy because no music notes are used.



**Bending.** You'll notice a new tablature symbol on a few of the riffs. Bending is indicated by a curved arrow. When a string is bent, the note you are playing will go up in pitch. The further you bend, the higher the pitch will be. You will see "1/2" or "Full" above each arrow. This is an indication of how far to bend the note. The first example shows a half bend. Play the note indicated, in this case a "G," then bend it until it sounds one half step higher. In the second example, bend up one full step.



## A Major

1  
2  
3  
4  
5  
6

6-9-6 10-9-7 9-7-6 9-7

7 7 5-9

7 7 7 7

## *A Major*

[illegible]

***G Dorian***

1 8 6  
2 5 5  
3 7 5  
4 3 3 7 5 3  
5 3 3 7 5  
6 3

***G Dorian***



### ***B Phrygian***

[illegible]

### *B Phrygian*

***F Lydian***

A musical score for the song 'The Rose Tree'. It is written for a single melodic line on a six-line staff. The key signature has one sharp (F#), and the time signature is 3/4. The melody is divided into two systems by a double bar line. The first system contains the first four measures, and the second system contains the next four measures. The notes are: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4-A4 (beamed eighth notes), G4 (quarter), F#4 (quarter), E4 (quarter), D4 (half). The lyrics 'The Rose Tree' are written below the staff, aligned with the notes. There are four groups of three vertical lines below the staff, each labeled with a '3', indicating triplets. The first two groups are under the first two measures, and the last two groups are under the last two measures.

***F Lydian***

The Rose Tree

No. 1

1 5-7-3

2 5-6-3

3 4-5-2

4 3 5 2

5 2-5-2 3

6 3-2-3 3-2 5-2 3

3

3 3 3 3

3 3 3

**Riff #9****A Mixolydian**

1 H sl. P H P sl.

2 7 10 8 8 7

3 6 7 7 9

4 9 7 5

5 7 5

6 5 3 7 5

**Riff #10****A Mixolydian**

1 P P P P P P

2 10 8 7 9 7 6 9 7 5 7

3 6 6 7 6 7 9 9 7 6 5 7

4 5 7 9 7 9 9 9 7 6 5 7

5

6 3 3 3 3 3 3 3

**Riff #11****G Minor**

1 P P

2 5 3 7 3 5 3 3 5 3 7 3 5 3 5 3 7 5 3 3 5

3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

5

6 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

**Riff #12****G Minor**

1

2 0 5 3 5 3 5 3 5 3 5 3 5 3 5 3 5 3 5 3

3 0 7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

5

6 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

## Riff #13      C Locrian

## Riff #14      C Locrian

## Riff #15      Blues Pattern 1

## Riff #16      Blues Pattern 1

**Riff #17****Blues Pattern 2**

1 6-5-3 P P 5 P P 4-3-2 2

2 5

3

4 2 5-5-2

5 2 5-6

6 3 3 3

**Riff #18****Blues Pattern 2**

1 5-6 3 3

2 5-3 5-3

3 4-3 4-3-2

4 2-5 5-2

5 5-6

6 3 3 3 3

**Riff #19****Blues Pattern 3**

1 5 6-5 6-5

2 4-7 8 8 8-5

3 7-5 7-5

4 7-5 7-5

5 7-6-5 6-5

6 3 3 3 3 3 3

**Riff #20****Blues Pattern 3**

1 5 5

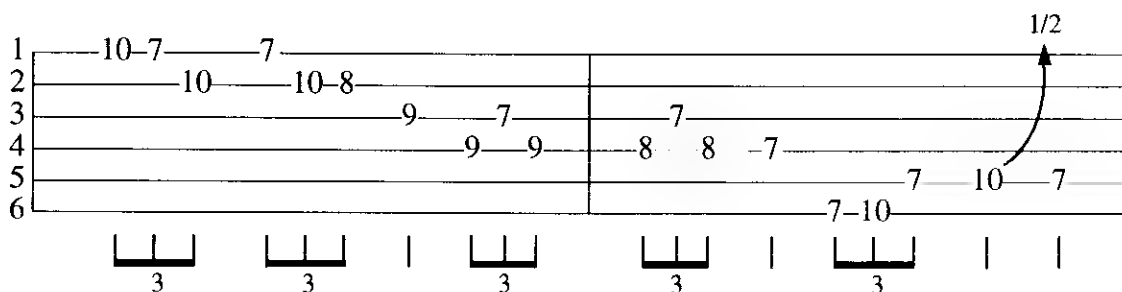
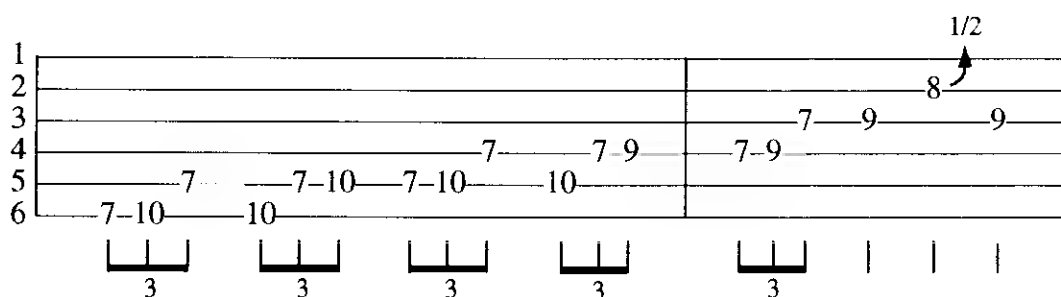
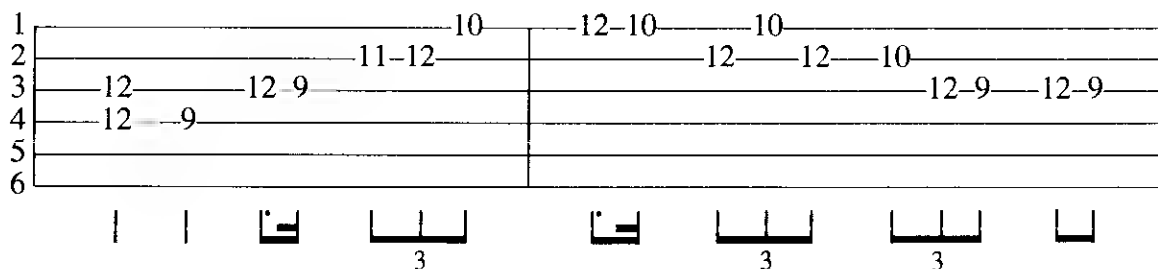
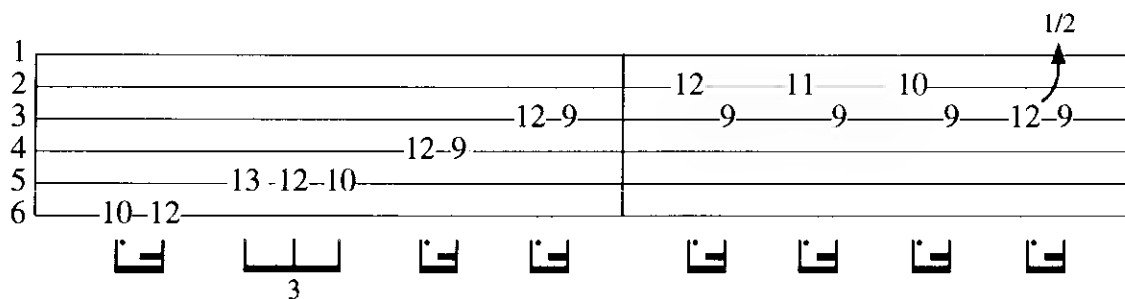
2 8-8-5 5

3 7-4-7 5

4 5 7-5-7

5 6-7

6 3 3 3

**Riff #21****Blues Pattern 4****Riff #22****Blues Pattern 4****Riff #23****Blues Pattern 5****Riff #24****Blues Pattern 5**



# Chapter 12

## Advanced Progressions and Solos

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The riffs in the last chapter all stayed within one scale. The following progressions and solos use a combination of many riffs, chords, and arpeggios .

### Advanced Progression #1

Diagram 1: A two-measure progression on a six-string guitar fretboard. Measure 1 features a power chord (P) on the 1st fret (index 1, thumb 0) and a 2-fret barre (index 2, middle 2, ring 2, pinky 2, thumb 0). Measure 2 features a 7-fret barre (index 7, middle 5, ring 5, pinky 5, thumb 0) and a 7-fret barre (index 7, middle 7, ring 7, pinky 7, thumb 0). Below the fretboard are eight square boxes for tablature notation.

Diagram 2: A two-measure progression on a six-string guitar fretboard. Measure 3 features a 9-fret barre (index 9, middle 9, ring 10, pinky 10, thumb 0) and an 8-fret barre (index 8, middle 11, ring 10, pinky 10, thumb 0). Measure 4 features a 9-fret barre (index 9, middle 9, ring 10, pinky 10, thumb 0) and an 8-fret barre (index 8, middle 11, ring 10, pinky 10, thumb 0). Below the fretboard are eight square boxes for tablature notation.

Diagram 3: A two-measure progression on a six-string guitar fretboard. Measure 5 features a 7-fret barre (index 7, middle 5, ring 5, pinky 5, thumb 0) and a 7-fret barre (index 7, middle 7, ring 7, pinky 7, thumb 0). Measure 6 features a 5-fret barre (index 5, middle 4, ring 4, pinky 4, thumb 0) and a 5-fret barre (index 5, middle 5, ring 5, pinky 5, thumb 0). Below the fretboard are eight square boxes for tablature notation.

## Advanced Progression #2

	P				
1					0
2	15	14		10	2
3	14	14		11	2
4	14	14		12	2
5	0		0		0
6				5	

### ***Advanced Progression #3***

1

2

3

4

5

6

P P

1 1 3 1 0

0 0 2 0 0

2 2 2 3 3 2

3

Diagram 1: A 6x6 grid representing a 6x6 grid. The grid is divided into two 3x3 subgrids by a vertical line. The top-left subgrid contains the numbers 1, 2, 3, 4, 5, 6 in the first column. The top-right subgrid contains the numbers 1, 2, 3, 4, 5, 6 in the first column. The bottom-left subgrid contains the numbers 1, 2, 3, 4, 5, 6 in the first column. The bottom-right subgrid contains the numbers 1, 2, 3, 4, 5, 6 in the first column. The grid is labeled with 'P' and 'P' above the top-left subgrid. Below the grid, there are four groups of three vertical bars, each group representing a 3x3 subgrid. The first group has three bars, the second has two bars, the third has two bars, and the fourth has one bar. The number 3 is written below the first group of bars.

[illegible]



## Advanced Progression #4

1		
2		
3		
4	9-9 11-9 9-9 11-9	9-9 11-9 9-9 11-9
5	7-7 7-7 7-7 7-7	7-7 7-7 7-7 7-7
6		

1		
2		
3		
4	11-11 13-11 11-11 13-11	11-11 13-11 11-11 13-11
5	9-9 9-9 9-9 9-9	9-9 9-9 9-9 9-9
6		

1				0
2				0
3				1
4	9-9 11-9 12-9 11-9	9-9 7-7 6-6 5-5	4	0
5	7-7 7-7 7-7 7-7	7-7 5-5 4-4 3-3	2-0 1 2	-2
6				0

## Advanced Progression #5

1	2-2 2-2 2 0-0 0-0-0	3-3 3 3-3
2	3-3 3 3 3 3-3 3 3 3	3 3 3-3-3 3 3 3-3-3
3	2-2 2-2 2 2-2 2-2-2	0-0 0 0-0 3-3 3 3-3
4	0-0 0-0-0 0-0 0-0-0	0-0 0-0-0 3-3 3-3-3
5		2-2 2-2-2 1-1 1-1-1
6		

1	0-0 0-0-0 3-3 3 3 3	1-1 1-1-1 3-3 3-3-3	2
2	2-2 2-2-2 0-0 0-0-0	1-1 1-1-1 0-0 0-0-0	3
3	2-2 2-2 2 0-0 0-0-0	2-2 2-2-2 0-0 0-0-0	2
4	2-2 2-2-2 0-0 0-0-0	3-3 3-3-3 0-0 0-0-0	0
5	0-0 0-0-0 2-2 2-2-2	3-3 3-3-3 2-2 2-2-2	
6		1-1 1-1-1 3-3 3-3-3	

## Advanced Progression #6

1 P P P P

## Advanced Progression #7

## Advanced Progression #8

[illegible]

1	7	5	9	12	9	7	10	7	14
2	8	7	10	10	10	8	8	8	15
3	7	7	9	9	9	7	7	7	14
4	0	0	0	0		0	0		0
5									
6									

## Advanced Progression #9

A musical score for the song 'The Rose Tree'. It features a six-staff system. The first four staves (1-4) contain the melody, with notes and rests labeled with numbers 1 through 7. The fifth and sixth staves (5-6) contain a bass line, also labeled with numbers 1 through 7. A vertical bar line divides the score into two measures. The first measure ends with a double bar line, and the second measure begins with a treble clef and a key signature of one sharp (F#). The second measure continues the melody and bass line. A final measure is indicated by a vertical bar line and a double bar line. The score is written in a style that suggests it is a simplified or educational version of the song.

The musical score for 'The Rose Tree' is written for a six-part vocal ensemble (Soprano, Alto, Tenor 1, Tenor 2, Bass 1, Bass 2). The key signature has one flat (B-flat), and the time signature is 3/4. The melody is primarily in the Soprano and Alto parts, with Tenor 1 and Tenor 2 providing harmonic support. The lyrics are in German and English. The score includes a repeat sign with first and second endings. The first ending leads back to the beginning of the verse, and the second ending leads to the final cadence. The piece concludes with a final chord in the Soprano and Alto parts.

## ***Advanced Progression #10***

1										
2										
3										
4						4      4      3				
5	2      4-5					4      4      4				
6	2-4-5      2					2-2-2-2-2				
	□		□		□		□		□	

1										
2										
3										
4	3					2      2      1				
5	4      2-4-5					2      2      2				
6	2-2-4-5					2-2-2-2				
	□		□		□		□		□	

1										
2										
3	7-6-4					7      7      7				
4	1      7					6-4-4-4-4				
5	2									
6	2-2									
	□		□		□		□		□	

1										
2										
3	6      6      1					1				
4	4      4      4      3					3				
5	5      5      5      4					4-4-0				
6						2				
	□		□		□		□		□	

1										
2	0-3-2					2      2				
3	1      2					2      2      2				
4	0      3					4      4      4				
5	4					4      4      4				
6						2      2				
	□		□		□		□		□	

***Solo #1***

[illegible]

***Solo #2***

1 H H P P P P H H H H H H  
2  
3 9-10-12 10-9 12-10-9 10 9-10-12 9-10-12 9-10-12 9-10-12  
4  
5  
6

3 3 3 3

### Solo #3

1		
2	0-0-5-0	7-0-8-0
3		0-0-7-0
4		8-0-10-0
5		
6		

*sl.*

1			
2	0-0-3-0	5-0-5-0	0-0-8-7-5
3			7-6-4
4			7-5-4
5			7-5-4-2
6			

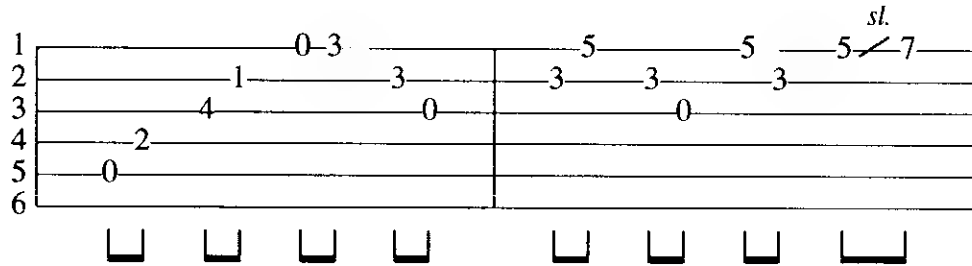
### Solo #4

1					
2	9-10	12	9-10	10	7-9
3					7-9
4					7-9-10-9-7
5					9-7-6
6					

*sl.*

1					
2				7-10-12-9	
3				9	10
4	7		7	6-9	10
5	7	5-9			9
6	9-5-7				11-12

## Solo #5



1 0-3 5 5 5 *sl.* 7

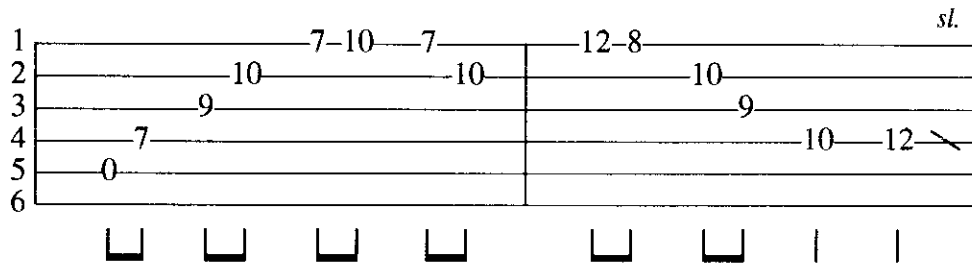
2 1 3 3 3 3

3 4 0 0

4 2

5 0

6



1 7-10-7 12-8 *sl.*

2 10 10 10

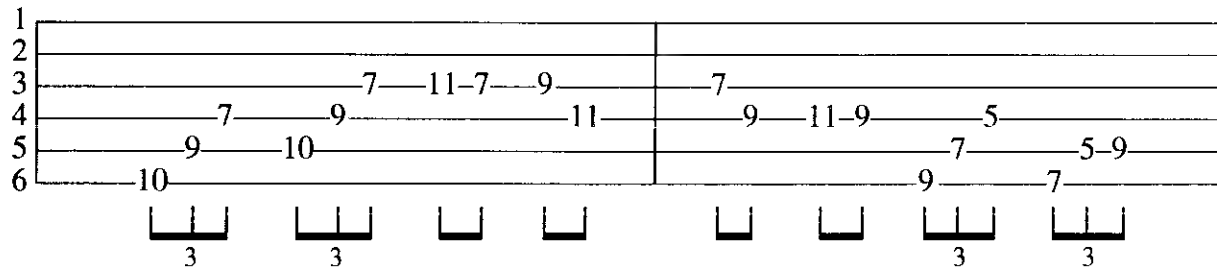
3 9 9

4 7 10-12

5 0

6

## Solo #6



1 7-11-7-9 7 9-11-9 5 7 5-9 9 7

2

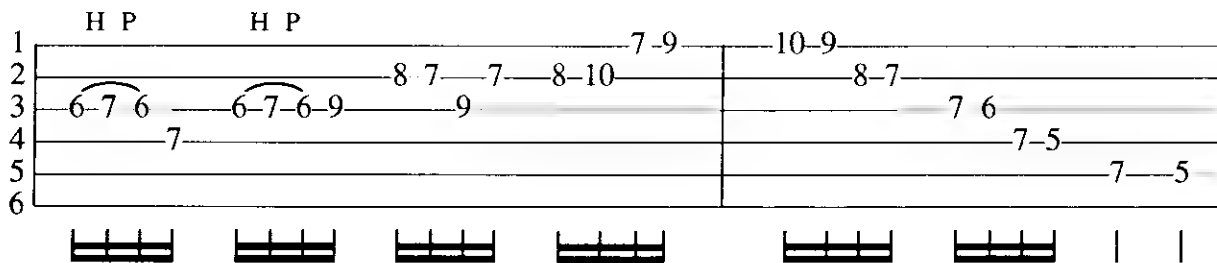
3 7 9 11

4 9 10

5 10

6

3 3 3 3



1 H P H P 7-9 10-9

2 6-7-6 6-7-6-9 8-7-7-8-10 8-7

3 7 9 7 6

4 7-5

5 7-5

6

## Solo #7

Measures 1-4 of Solo #7. The notation is as follows:

Measure	Staff 1	Staff 2	Staff 3	Staff 4	Staff 5	Staff 6
1	12-9	9-12-9-14-9				
2		10				
3						
4						
5						
6						

Below the staves, there are four pairs of beamed eighth notes, each with a '3' underneath, indicating triplets.

Measures 5-8 of Solo #7. The notation is as follows:

Measure	Staff 1	Staff 2	Staff 3	Staff 4	Staff 5	Staff 6
5	12 10-9	12-10-9-10				
6		11				
7	9-7-5-4	5				
8	4-7-5-4	5	4	6-7		

Measures 5 and 6 have four pairs of beamed eighth notes (triplets). Measures 7 and 8 have four pairs of beamed eighth notes (triplets). Measure 8 ends with a bar line.

## Solo #8

Measures 1-4 of Solo #8. The notation is as follows:

Measure	Staff 1	Staff 2	Staff 3	Staff 4	Staff 5	Staff 6
1	12 0-0-10-0-0-5-6-7	8 5				
2		3 0				
3		3 0	0 2-4-0			
4			2			
5						
6						0

Measures 1-4 have four pairs of beamed eighth notes (triplets). Measure 4 ends with a bar line.

Measures 5-8 of Solo #8. The notation is as follows:

Measure	Staff 1	Staff 2	Staff 3	Staff 4	Staff 5	Staff 6
5	12-10-7-10-7	11-8-10-11-8	9			
6			9-12-9			
7			9-12-12			
8						

Measures 5-8 have four pairs of beamed eighth notes (triplets). Measure 8 ends with a bar line.



## Solo #9

1 12-11-10—11-10-9—10-9—9—  
 2 —————13—13-12—13-12-11—12-11-10—11-10—10—  
 3 —————13—13-12—  
 4 —————  
 5 —————  
 6 —————

3 3 3 3 3 3 3 3

*sl.*  
 1 —————  
 2 —————11—10—9—8—  
 3 —————12—11—10—9—  
 4 —————13—12—11—10—  
 5 —————  
 6 —————

3 3 3 3

## Solo #10

TP P P H P TP P P H P TP P P H P TP P P H P  
 1 —12-9—5-0—5-0—12-9—5-0—5-0—12-10—7 0—7-0—12-10—7 0—7 0—  
 2 —————  
 3 —————  
 4 —————  
 5 —————  
 6 —————

3 3 3 3 3 3 3 3 3 3 3 3

TP TP TP TP TP TP TP TP TP TP TP TP TP TP TP  
 1 —12-10—12-9—12-7—12-10—12-9—12-7—12-10—12-9—12-7—12-10—12-9—12-7—  
 2 —————  
 3 —————  
 4 —————  
 5 —————  
 6 —————

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## ***Notes***

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